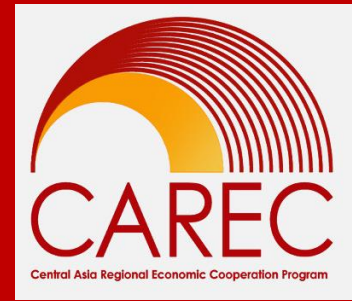




ASIA-PACIFIC  
ROAD SAFETY  
OBSERVATORY



# ROAD TRAFFIC ACCIDENT DATA COLLECTION AND ANALYSIS WORKSHOP COUNTRY: MONGOLIA

**TA-6763 REG: Accelerating Innovation in Transport**

*Presented by*

*David Shelton, Senior Transport Specialist (Road Safety), Asian Development Bank*

*Ravishankar Rajaraman, Road Crash Data Specialist, JP Research India Pvt. Ltd.*

*6 – 7 March 2023*



ASIA-PACIFIC  
ROAD SAFETY  
OBSERVATORY



## PART 1:

# STUDY OBSERVATIONS AND RECOMMENDATIONS

Presentation on the study conducted in the week of 28 Nov – 2 Dec 2022

# OBJECTIVES

- To determine the effectiveness of Road Traffic Accident data collection, analysis, reporting and use by police, hospitals and other stakeholders influencing road safety in the country of Mongolia.

# SITE VISIT (28 NOV – 2 DEC 2022)

- Meetings conducted with:
  - Ministry of Road Transport and Development
  - National Road Transport Centre
  - National Police Agency
  - Mandatory Insurers' Association
  - National Trauma and Orthopedic Research Center
  - Road Safety Department, University of Internal Affairs
  - Tuv province traffic police station and hospital
  
- Road traffic accident investigation of a pedestrian accident

# ROAD TRAFFIC ACCIDENT DATA REVIEW

## *BREAKING DOWN THE PROCESS*



# “ROAD” “TRAFFIC” ACCIDENT DEFINITION

## What is a “Road” in Mongolia?

- Road Traffic Accidents involving motorcyclists in off-road conditions are counted under road traffic Road Traffic Accidents by the police.
- *Are areas off-road considered under roads?*

## Which modes of transport are considered as “Traffic” in Mongolia?

- At hospitals, falling off a horse was also counted as a road traffic Road Traffic Accident.
- *Is a horse part of “traffic”?*

**Need clarity in definitions to avoid ambiguity.**

**Results in differences in counts of Road Traffic Accidents by various agencies.**

# ROAD TRAFFIC “INJURY” DEFINITION

- From published police reports, it is understood that a person killed in a road traffic accident within 30 days of occurrence is defined as a road traffic fatality.
- The police accident reports classify injuries under the following headings:
  1. Minor
  2. Moderate
  3. Serious
  4. Severe
- The definitions to classify injured victims under each of these categories could not be found.

# ROAD TRAFFIC ACCIDENT NOTIFICATION

- Unified emergency number (102).
- All road traffic accident calls are diverted to the Traffic Police Department under the National Police Agency.
- Call received are logged in a computer database with GIS mapping.





# ROAD TRAFFIC ACCIDENT RESPONSE

- On reaching the Road Traffic Accident scene, the Traffic Police Officer immediately secures the site.
  - In case of property damage only, Traffic Police Officer makes a report.
  - In case of injury, Traffic Police Officer calls ambulance and Road Traffic Accident investigation team.



# ROAD TRAFFIC ACCIDENT INVESTIGATION

- Capturing Driver/Vehicle information
  - Driver and Vehicle registry online.
- Scene examination
  - Marking, measuring and photographing scene
  - Scene diagram created.
- Vehicle examination
  - Photography
  - Technical checks
- Injury examination
  - Medical reports from hospitals
- Data storage
  - On paper forms
  - Traffic Police Department does not have access to this data



# ROAD TRAFFIC ACCIDENT RECONSTRUCTION

- Based on discussions with the Road Traffic Accident investigation team:
  - Road Traffic Accidents are reconstructed to determine the speeds of the vehicles involved.
  - The data from the Road Traffic Accident reconstructions is only recorded in the criminal case files in paper form and is not stored in any computer database or provided to the traffic police.

# ROAD TRAFFIC ACCIDENT RECONSTRUCTION TRAINING AT LAW ENFORCEMENT UNIVERSITY



Law Enforcement University

БАКАЛАВРЫН СУРАЛТЫН ХОТӨЛБӨРИЙГ ХЭРЭГЖҮҮЛЭХД ШАРШДАГАТАЙ БАГШЫН СУДАЛГАА

Дүн	Хичээлийн нэр	Саяг цаг	Улирал	Хичээлийн хэлбэр			Бие даалт	
				Лекц	Семинар	Лаб		
Цагдаа сууцал-4 жил								
1	MOP.P212	Замын хөдөлгөөний зохицуулалт, асууцуй байдал	2	IV	48	16	32	48
6	TMR.P309	Замын хөдөлгөөний хяналт, зам тээврийн ослыг шалгах ажиллагаа	3	V	80	16	64	64
Цагдаа сууцал-3 жил								
4	TMR.P306	Замын хөдөлгөөний хяналт, зам тээврийн ослыг шалгах ажиллагаа	3	II	50	20	30	94
2	MOP.P212	Замын хөдөлгөөний зохицуулалт, асууцуй байдал	2	II	40	20	20	56
Цагдаа сууцал-5 жил								
6	TMR.P309	Замын хөдөлгөөний хяналт, зам тээврийн ослыг шалгах ажиллагаа	3	III	50	20	30	94
2	MOP.P212	Замын хөдөлгөөний зохицуулалт, асууцуй байдал	2	II	40	20	20	56
Цагдаа сууцал-2 жил								
1	MOP.P212	Замын хөдөлгөөний зохицуулалт, асууцуй байдал	2	II	48	16	32	48
2	TMR.P309	Замын хөдөлгөөний хяналт, зам тээврийн ослыг шалгах ажиллагаа	3	II	64	32	32	80
Цагдаа сууцал-3ХАБ-2 жил								
1	TRE.P303	Замын хөдөлгөөний зохицуулалт, хөдөлгөөний зохицуулах техник, хувиарал	3	III	64	32	32	80
2	TSM.P304	Замын хөдөлгөөний хяналтын арга зүй	3	III	64	32	32	80
3	OSM.P306	Замын хөдөлгөөний уурдалгаа, зохион байгуулалт	3	III	64	32	32	80
4	CRA.P306	Зам тээврийн ослыг зөрчилтэй шалгах шийдвэрлэх ажиллагаа	3	III	64	32	32	80
5	MOR.P304	Замын хөдөлгөөний асууцуй байдал, зөвхөн цагдаагийн байгууллагын үйл ажиллагаа	3	II	64	32	32	80
1	STC.P201	Замын хөдөлгөөний асууцуй байдалын үндэс	3	II	64	32	32	80
3	RTR.P202	Замын хөдөлгөөний дүрэм судлал	2	II	48	16	32	48
2	RPI.P104	Мэргэжлийн удиртгал	2		48	16	32	48
Цагдаа сууцал-ХУС-2 жил								
1	MOP.P212	Замын хөдөлгөөний зохицуулалт, асууцуй байдал	2	II	48	16	32	48
Мөрдөх алба-Шинжлэх мэргэжль-2 жил								
1	MOP.P212	Замын хөдөлгөөний зохицуулалт, асууцуй байдал	2	II	48	16	32	48

Багшлах бүрэлдэхүүн	Гүйцэтгэж авч эзэлж	Гүйцэтгэж авч	Зөрүү
Эрхлэгч, д.х Н.Габбат	12	17.5	5.5
Дэд профессор, х/э С.Хажуугаас	14	27.2	13.2
Ахлах багш, х/м Т.Аюушаар	16	21.6	5.6
Угт	42	66.3	24.3

Course list



Calculations for motor vehicle dynamics and speeds

On-site Road Traffic Accident investigation and reconstruction training is being provided by Law Enforcement University, Ulaanbaatar.

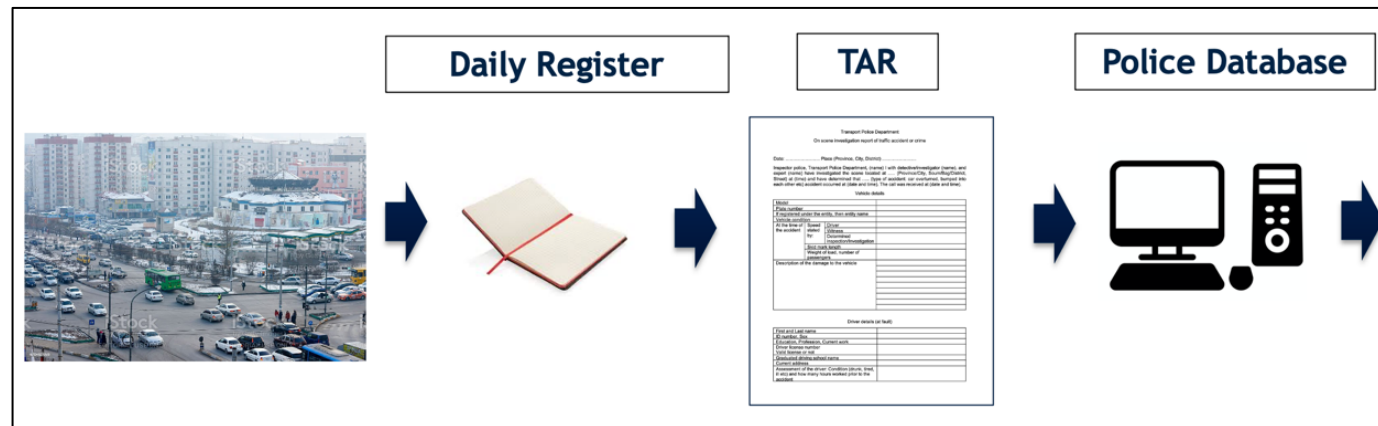


INTERNAL. This information is accessible to ADB Management and staff. It may be shared outside ADB with appropriate permission.



# ROAD TRAFFIC ACCIDENT DATA COLLECTION & STORAGE

- Road Traffic Accident data is mostly collated manually and stored in MS Excel.



# ROAD TRAFFIC ACCIDENT ANALYSIS

Restricted to identification of the following four factors:

1. Driver fault
2. Pedestrian misconduct
3. Road conditions
4. Technical failure



Жолоочийн  
буруутай  
үйлдэл

97.8%



Явган  
зорчигчийн  
буруутай  
үйлдэл

2.0%



Замын  
нөхцөл

0.2%



Техникийн  
гэмтэл

0%

Year 2021



ASIA-PACIFIC  
ROAD SAFETY  
OBSERVATORY



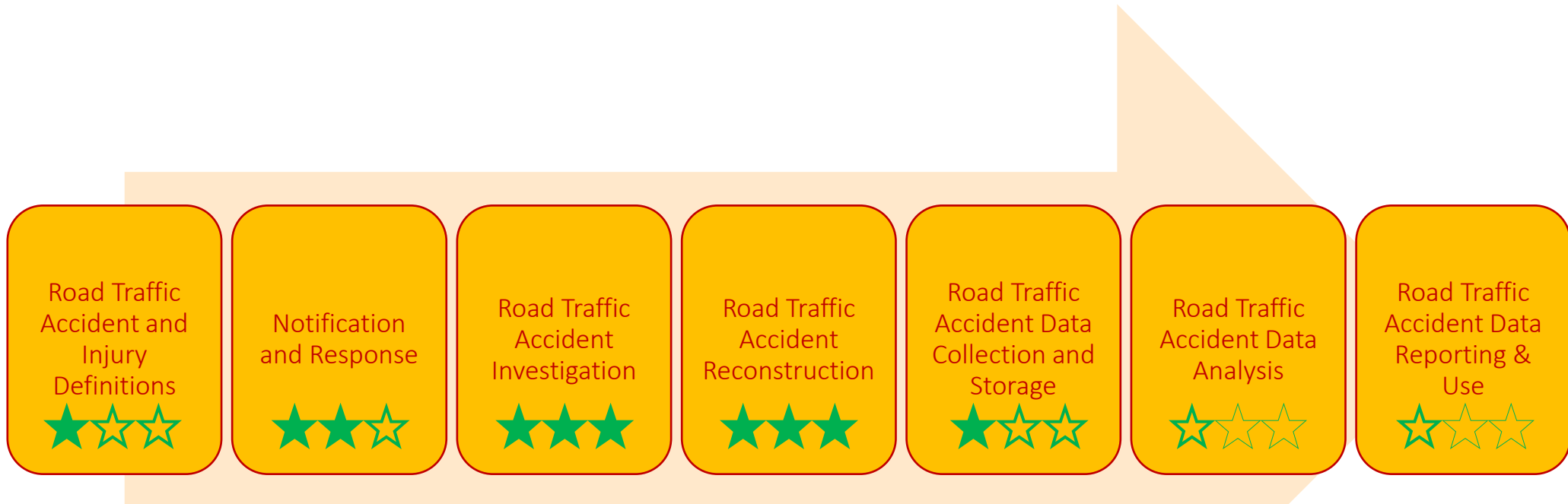
CAREC  
Central Asia Regional Economic Cooperation Program

# ROAD TRAFFIC ACCIDENT DATA REPORTING & USE

- “Compilation of statistics of traffic accidents and violations in Mongolia - 2021”.
- Reports aimed at providing data sought by various organizations for country comparisons.
- Lacks in-depth analysis to provide focus areas for national and local decision makers to take concrete steps to mitigate Road Traffic Accidents and injuries.

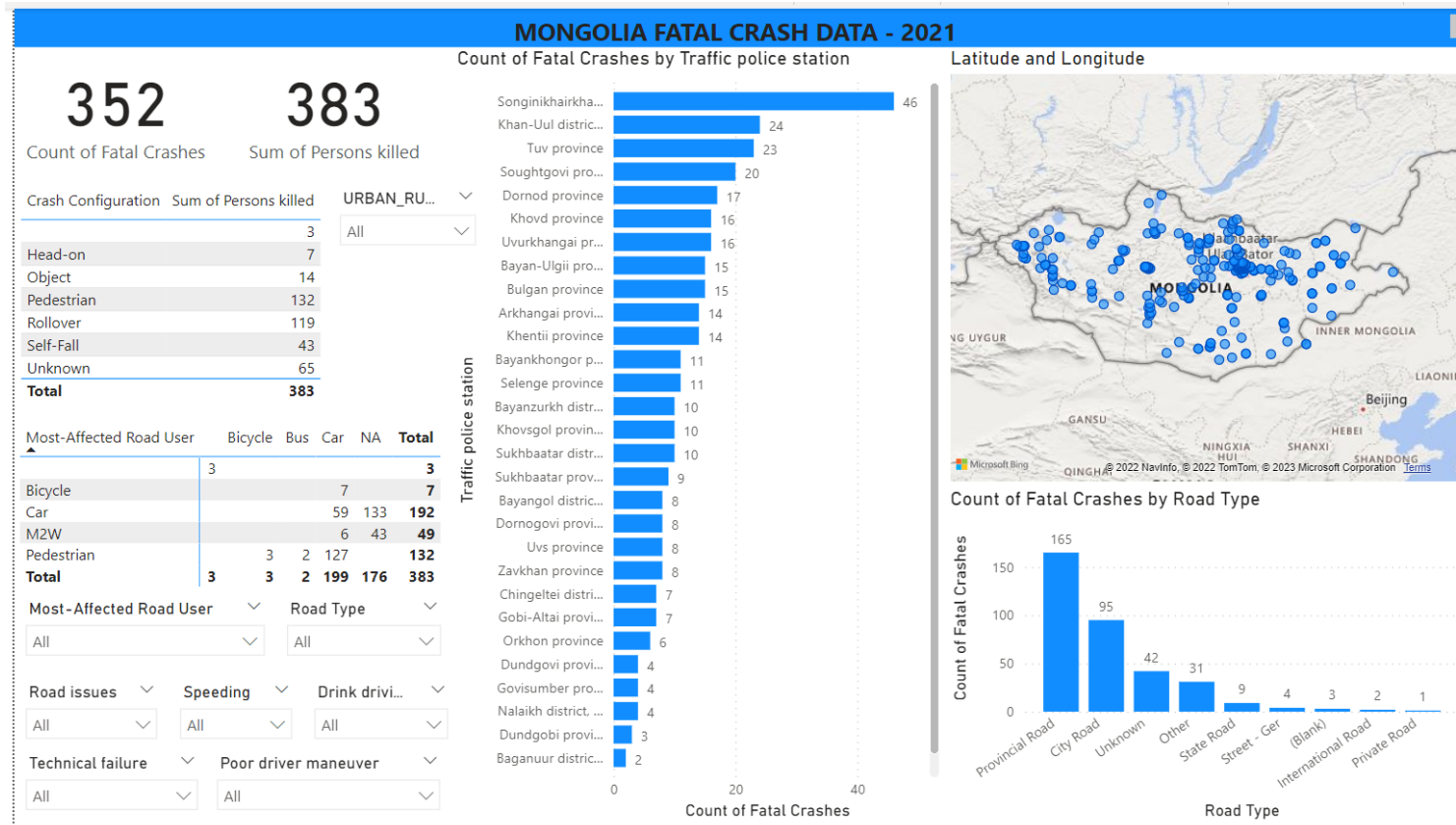
# ROAD TRAFFIC ACCIDENT DATA REVIEW

## *SUMMARY FINDINGS*





# FATAL ROAD TRAFFIC ACCIDENT MONGOLIA DATA DASHBOARD YEAR 2021



# CRASHES IN MONGOLIA (2021)

- **Urban: 111 fatal crashes resulting in 116 fatalities.**
  - Pedestrian fatalities: 73 (63%)
    - Majority impacted by a car
  - Car occupant fatalities: 37 (32%)
    - Car to car crashes are 50% while the remaining are single vehicle crashes (object, rollover)

# CRASHES IN MONGOLIA (2021)

- Rural: 241 fatal crashes resulting in 267 fatalities.
  - Car occupant fatalities: 155 (58%)
    - 75% of the car occupant fatalities are due to rollovers or object impacts
  - Pedestrian fatalities: 59 (22%) [all pedestrians impacted by cars]
  - Motorcyclist fatalities: 46 (17%) [89% were self-falls]



## PART 1:

# STUDY OBSERVATIONS AND RECOMMENDATIONS

For any queries or feedback, please contact:

[dshelton@adb.org](mailto:dshelton@adb.org)

[ravishankar@jpri.in](mailto:ravishankar@jpri.in)