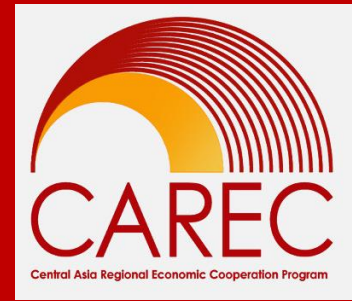




ASIA-PACIFIC
ROAD SAFETY
OBSERVATORY



ROAD TRAFFIC ACCIDENT DATA COLLECTION AND ANALYSIS WORKSHOP

COUNTRY: TAJIKISTAN

TA-6763 REG: Accelerating Innovation in Transport

Presented by

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13 – 14 March 2023



ASIA-PACIFIC
ROAD SAFETY
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PART 1:

STUDY OBSERVATIONS AND RECOMMENDATIONS

Presentation on the study conducted in the week of 5 Dec – 9 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 Tajikistan

ROAD TRAFFIC ACCIDENT DATA REVIEW

BREAKING DOWN THE PROCESS



“ROAD” “TRAFFIC” ACCIDENT DEFINITION

Decree of the Government of Tajikistan #172 dated 01 April 2008.

- The Rules specifies that road accidents involving at least one vehicle in motion, resulting in death or bodily injury to people, or damage to vehicles, cargo, roads, road and other facilities or other assets are subject to recording.
- Roads include any street, road, alley, etc. used for traffic along its entire width (including sidewalks, curbs and dividing strips)
- Accidents committed on the fenced and guarded territories of enterprises, organizations, airfields, military units and other facilities with a pass system of entry and exit, on road sections equipped with a barrier, as well as in places not intended for the movement of vehicles;
- Clear description of types of accidents that will not be recorded:
 - Sport events
 - Farming
 - Intentional/suicides
 - Natural disasters
 - No driver at the wheel
 - Fires not a result of technical malfunction

“ROAD” “TRAFFIC” ACCIDENT DEFINITION

- Road traffic accident well defined with exclusions.

Some clarifications:

- Vehicle – does it include non-motorized transport?
- Bicycle impacting a pedestrian on the footpath. Is it a road traffic accident?

ROAD TRAFFIC “INJURY” DEFINITION

Fatality definition:

- The number of people killed in a road accident includes those who died from the injuries at the scene of the accident or within 7 days after the accident.
- The number of those injured in a road accident includes people who have received severe or moderate injuries.
- *What is severe or moderate injury? Is there a definition?*

ROAD TRAFFIC ACCIDENT NOTIFICATION

- For nearest police station:
 - Call 02 from landline
 - Call 102 from cellphone
- For nearest district hospital:
 - Call 03 from landline
 - Call 103 from cellphone
- Call centre not unified for all emergencies.

ROAD TRAFFIC ACCIDENT RESPONSE

- In case of injuries in the accident, ambulance will be dispatched. But due to shortage of ambulances and long travel times, victims are transported to hospital by other means of transport.
- Registration of accident done by police.
 - Government resolution: Registration of road accident is completed by internal affairs by the traffic police at the place of its commission and at the place of registration of vehicles.
 - For every road traffic accident, a registration card is filled out.

ROAD TRAFFIC ACCIDENT INVESTIGATION

- Cases can be criminal or administrative. For both Traffic Police Department fill out the registration card.
- Each case receives a unique case id based on province and year of accident.
- Scene examination:
 - Scene diagram does not specify crash phases clearly with measurements.
 - Scene photos not available in digital form. Printed in report.
- Vehicle examination:
 - Vehicle photos not available in digital form. Printed in report.
 - Driver alcohol check, if suspected.
 - Seatbelt use determined by expert/engineer
- Ministry of Justice has a Special Unit with technical expertise to check the investigation.
- All fatal accident case reports are archived by the court. Access through prosecutor's office.

ROAD TRAFFIC ACCIDENT RECONSTRUCTION

- The data collected at the scene and from the vehicle damages, may not be insufficient to conduct accident reconstruction to estimate speed of the vehicles involved.
- Investigation team in each district. Police academy have a course on road traffic accident investigation.

ROAD TRAFFIC ACCIDENT DATA COLLECTION AND STORAGE

- Within 5 days, a registration card is completed and submitted for each road traffic accident.
- Registration card contains information such as:
 - Type of crash
 - Location/address (not GPS), road type and road conditions
 - Participants
 - Driver and license information, violations of rules
 - Vehicle details and technical failures
 - Victims – road use type, transferred to hospital, etc.
- Registration card format is fixed by law.

ROAD TRAFFIC ACCIDENT DATA COLLECTION AND STORAGE

- An in-house road traffic accident database is managed by the control office (centralized).
- 81 districts provide registration cards that is then manually entered into the software. Software fields are same as registration card.
- Additional information from investigation and reconstruction is not stored.
- Driver and vehicle information systems maintained by Ministry of Interior.
 - Safe City System
 - Vehicle registry
- For criminal cases – Ministry of Justice also has a database.
 - Form No 1 – Case registration
 - Form No 2- Conviction

ROAD TRAFFIC ACCIDENT DATA COLLECTION AND STORAGE

- The in-house software and database is on a local system and is maintained by the police team.
- The software also has some data visualization capabilities (bar graphs, line graphs, etc.)
- *Can the database and reporting be customized?*
- This is a good start for road traffic accident data collection and analysis and can be developed further as crash investigation data quality and analysis improves.
 - Additional forms and fields
 - Storage space
 - Report generation
 - Backups and redundancy

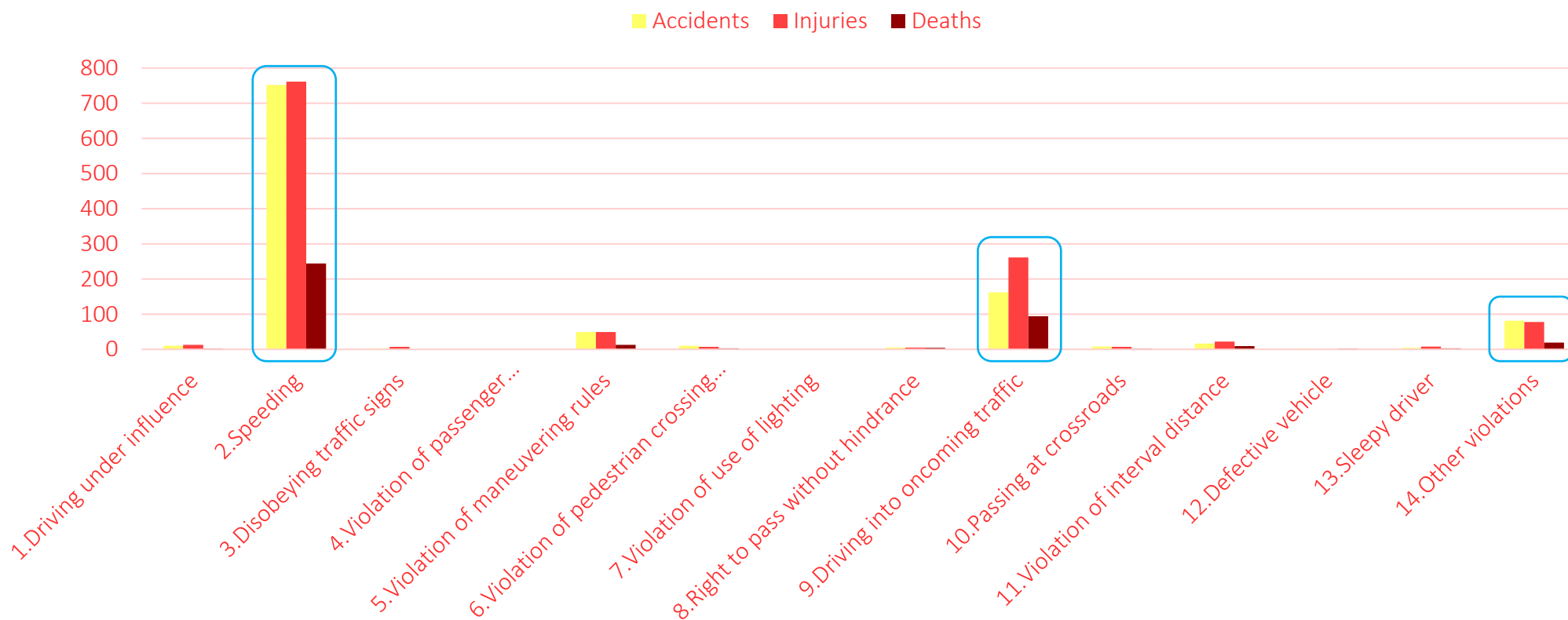
ROAD TRAFFIC ACCIDENT ANALYSIS

Causes for each road traffic accident determined under 14 categories

1. Driving under influence
2. Speeding
3. Disobeying traffic signs
4. Violation of passenger transportation
5. Violation of maneuvering rules
6. Violation of pedestrian crossing rules
7. Violation of use of lighting
8. Right to pass without hindrance
9. Driving into oncoming traffic
10. Passing at crossroads
11. Violation of interval distance
12. Defective vehicle
13. Sleepy driver
14. Other violations

ROAD TRAFFIC ACCIDENT ANALYSIS

CAUSES OF ROAD ACCIDENT FATALITIES (2021)



ROAD TRAFFIC ACCIDENT ANALYSIS

CAUSES OF ROAD ACCIDENT FATALITIES (2021)

- Observations:
 - All accidents have only one major cause that is identified. This cannot be correct as accidents usually have many causal or contributing factors. Such as driver was sleepy and drove into the oncoming road.
 - “Speeding”, “Driving into oncoming traffic” and “Other violations” are top three causes.
 - Counts of all accidents are mixed with counts of persons injured and killed.
 - Definitions are not clear. No coding manual / data dictionary

ROAD TRAFFIC ACCIDENT ANALYSIS

CARTOGRAPHICAL ANALYSIS (2021)

- For each road
 - Accidents by Chainage (km) and city/district through which road passes.
 - Black spots identified by chainage km and type of collision.
 - Distribution of accidents, injuries, deaths by Month/Day of Week/Time of Day
 - Distribution of accidents, injuries, deaths by Type of accidents and Type of violations

ROAD TRAFFIC ACCIDENT ANALYSIS

CARTOGRAPHICAL ANALYSIS (2021)

- Observations:
 - Blackspot location needs to be more specific in meters or GPS.
 - 1 km is a long stretch to analyze.
 - The analysis has no photographs to show road conditions at the identified sites of accidents.
 - Analysis by type of violations and accidents is good but need more details.

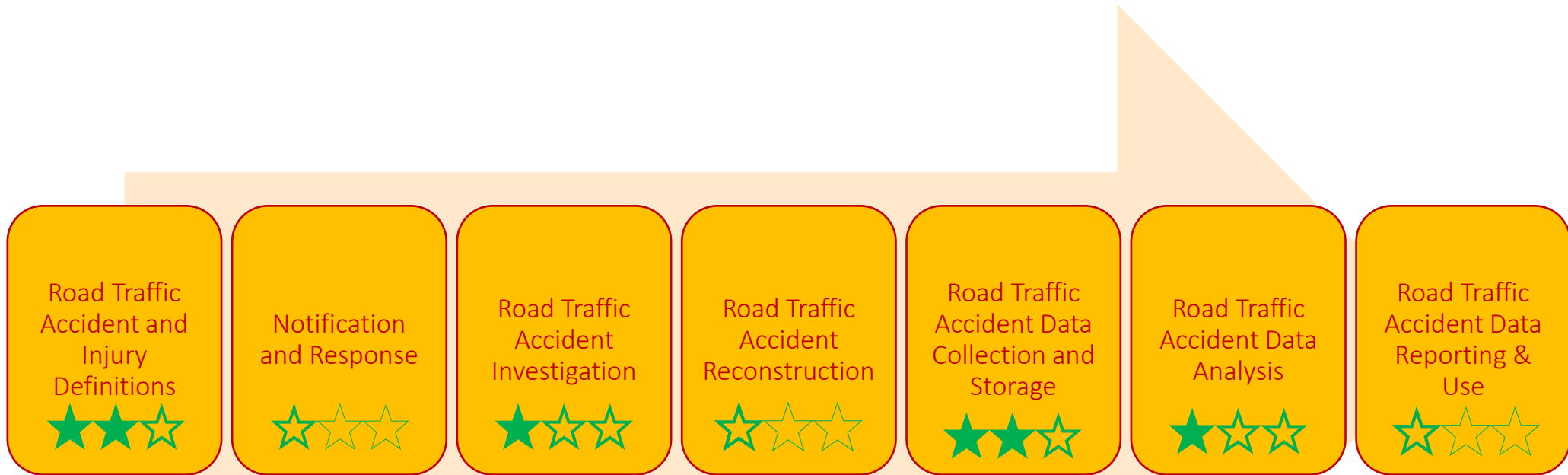
ROAD TRAFFIC ACCIDENT DATA REPORTING & USE

Two reports shared:

1. Analytical report on the state of traffic accidents on the roads of Republic of Tajikistan in 2021
 2. Cartographical Analysis of traffic accidents on highways of international and national significance in 2021.
- The reports indicate a good base for data reporting.
 - Limitations of analysis impedes the data reports from being useful in planning and implementing road safety interventions.

ROAD TRAFFIC ACCIDENT DATA REVIEW

SUMMARY FINDINGS



AREAS OF FOCUS

- Road Traffic Accident Investigation and Reconstruction
- Road Traffic Accident Data Analysis
- Road Traffic Accident Data Reporting and Use



PART 1:

STUDY OBSERVATIONS AND RECOMMENDATIONS

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