The Road Safety Observatory in Asia-Pacific (APRSO)

Status of Road Safety in the Asia-Pacific Region

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Transport Division

United Nations ESCAP
Agenda

1. About ESCAP
2. Context
3. Global and Regional Initiatives
UN ESCAP

1. One of five regional commissions (53 member States and 9 associated members, with more than 60% of global population)
2. Only UN intergovernmental body HQ in the region
Global and Regional

ESCAP Ministerial Conference on Transport, Busan, 2006
ESCAP Ministerial Declaration on Improving Road Safety in Asia and the Pacific is adopted

ESCAP Ministerial Conference on Transport, Moscow, December 2016
The updated Regional Road Safety Goals and Targets for Asia and the Pacific 2016-2020 are adopted

UN Road Safety Trust Fund, Geneva, April 2018
Establish the Advisory Board and Steering Committee

Global Plan
Decade of Action
2011
2015
2016
2017
2018
2019
2020
2030

RSTF Pilot Projects (ESCAP, June 2019)
SDGs – Road Safety

1. Target 3.6: “By 2020, halve the number of global deaths and injuries from road traffic accidents”

2. Target 11.2: “By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, by improving road safety - -”
Matches the 5 pillars of actions on Road Safety
SUBREGIONAL SOC REVIEWS: A series of meetings across the subregion to facilitate dialogue between government officials, civil society, experts and other stakeholders on the theme of "Empowering people and ensuring inclusiveness and equality"
UN ESCAP


2. Updated Regional Road Safety Goals and Targets
Updated Regional Road Safety Goals and Targets for Asia and the Pacific

Overall objective: 50% reduction in fatalities and serious injuries on the roads of Asia and the Pacific over the period 2011 to 2020.

1. Making road safety a policy priority.
2. Making roads safer for vulnerable road users, including children, elderly people, pedestrians, non-motorized vehicle users, motorcyclists and person with disabilities.
3. Making roads safer and reducing the severity of road crashes.
4. Making vehicles safer and encouraging responsible vehicle advertising.
5. Improving national and regional road safety systems, management and enforcement.
6. Improving cooperation and fostering partnerships.
7. Developing the Asian Highway Network as a model of road safety
8. Providing effective education on road safety awareness to the public, young people and drivers.
1. Strong correlation between infrastructure design and road safety outcomes
2. Harmonized driving conditions
Road Safety Crisis

1. In 2016, over 1.35 million road crash fatalities (>60% in ESCAP region)
2. One person killed by road crashes in every 38 seconds in ESCAP Region (In 2013, 43 seconds).
3. Economic cost – estimated to be as high as 6% of national GDPs
ESCAP impact

The global road traffic trends is heavy influenced by the ESCAP region.

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ESCAP increase as usual</td>
<td>a. NON-ESCAP countries no change</td>
</tr>
<tr>
<td></td>
<td>b. NON-ESCAP high-income countries decrease by 50% and other countries increase as usual</td>
</tr>
<tr>
<td></td>
<td>c. NON-ESCAP high-income countries have 0 fatality and other countries increase as usual</td>
</tr>
<tr>
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<td>a. ESCAP increase as usual</td>
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<td></td>
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<td></td>
<td>c. ESCAP reduce 50% of fatalities</td>
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</tr>
<tr>
<td></td>
<td>c. ESCAP reduce 50% of fatalities</td>
</tr>
</tbody>
</table>
Scenarios 1: ESCAP region increase as usual

- Global projection 1
- Global projection 2
- Global projection 3
- ESCAP
- Non-ESCAP countries no change
- Non-ESCAP high-income countries decrease by 50% and other countries increase as usual
- Non-ESCAP high-income countries have 0 fatality and other countries increase as usual
Scenarios 2: ESCAP members change while the Non-ESCAP high-income countries decrease by 50% and other countries increase as usual.
Scenarios 3: ESCAP members change while the Non-ESCAP high-income countries reduce to zero fatalities and other countries increase as usual
ESCAP Fatality Data

- Fatality Numbers and Rates.
- Sub-regional comparisons.
- Income level comparisons.
- Vulnerable Road Users.
Fatalities by the Income Levels

For Middle income countries, the proportion of road death exceeded the proportion of population, both globally and in the ESCAP region.

World Bank Country Classifications 2016
Fatalities by ESCAP sub-regions (2016)

- ESCAP, 61.42%
- South and South-West Asia, 29.53%
- East and North-East Asia, 20.16%
- South-East Asia, 8.61%
- North and Central Asia, 2.87%
- Pacific, 0.24%
- other region, 38.58%
ESCAP Region

ESCAP Road Crash Fatalities

Number of Fatalities

- 2007: 700,000
- 2010: 777,000
- 2013: 733,000
- 2016: 812,172
ESCAP Road Crash Fatalities and Fatality Rates (2016)
Rates of road traffic death per 100,000 population by ESCAP sub-region, 2013 and 2016

<table>
<thead>
<tr>
<th>Region</th>
<th>2013 (per 100,000 population)</th>
<th>2016 (per 100,000 population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>17.34</td>
<td>18.14</td>
</tr>
<tr>
<td>ESCAP</td>
<td>17.17</td>
<td>18.35</td>
</tr>
<tr>
<td>Pacific</td>
<td>8.02</td>
<td>8.03</td>
</tr>
<tr>
<td>East and North-East Asia</td>
<td>17.50</td>
<td>16.75</td>
</tr>
<tr>
<td>North and Central Asia</td>
<td>17.83</td>
<td>16.50</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>18.96</td>
<td>17.78</td>
</tr>
<tr>
<td>South and South-West Asia</td>
<td>20.30</td>
<td>16.42</td>
</tr>
</tbody>
</table>

2013 (per 100,000 population)  2016 (per 100,000 population)
Rates of road traffic death per 100,000 vehicles by ESCAP sub-region, 2013 and 2016

Under-reporting of registered vehicles?

Fatality rate per 100,000 vehicles (2013) | Fatality rate per 100,000 vehicles (2016)
--- | ---
ESCAP | 82.23, 77.21 | 134.52, 133.56
Pacific | 8.59, 13.47 |
East and North-East Asia | 74.96, 66.26 |
North and Central Asia | 60.74, 53.08 |
South-East Asia | 53.72, 42.82 |
South and South-West Asia |
Changes in Fatalities

ESCAP Country Road Crash Fatalities Changes (2013-2016)

Road Crash Fatalities decreased in 23 ESCAP Countries

*Countries that have great control on fatalities since 2013.*
### TOP 5 countries with increased number of road crashes

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>2013</th>
<th>2016</th>
<th>Changes of number</th>
<th>Increased rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>India</td>
<td>207,551</td>
<td>299,091</td>
<td>91,540</td>
<td>44.10%</td>
</tr>
<tr>
<td>2</td>
<td>Bangladesh</td>
<td>21,316</td>
<td>24,954</td>
<td>3,638</td>
<td>17.07%</td>
</tr>
<tr>
<td>3</td>
<td>Turkey</td>
<td>6,687</td>
<td>9,782</td>
<td>3,095</td>
<td>46.28%</td>
</tr>
<tr>
<td>4</td>
<td>Viet Nam</td>
<td>22,419</td>
<td>24,970</td>
<td>2,551</td>
<td>11.38%</td>
</tr>
<tr>
<td>5</td>
<td>Philippines</td>
<td>10,379</td>
<td>12,690</td>
<td>2,311</td>
<td>22.27%</td>
</tr>
</tbody>
</table>

### TOP 5 countries with decreased number of road crashes

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>2013</th>
<th>2016</th>
<th>Changes of number</th>
<th>Decreased rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Iran (Islamic Rep. of)</td>
<td>24,896</td>
<td>16,426</td>
<td>-8,470</td>
<td>-34.02%</td>
</tr>
<tr>
<td>2</td>
<td>Indonesia</td>
<td>38,279</td>
<td>31,726</td>
<td>-6,553</td>
<td>-17.12%</td>
</tr>
<tr>
<td>3</td>
<td>China</td>
<td>261,367</td>
<td>256,180</td>
<td>-5,187</td>
<td>-1.98%</td>
</tr>
<tr>
<td>4</td>
<td>Thailand</td>
<td>24,237</td>
<td>22,491</td>
<td>-1,746</td>
<td>-7.20%</td>
</tr>
<tr>
<td>5</td>
<td>Russian Federation</td>
<td>27,025</td>
<td>25,969</td>
<td>-1,056</td>
<td>-3.91%</td>
</tr>
</tbody>
</table>
Road traffic death by road user type

Distribution map of road traffic deaths by road user type, 2016
Vulnerable Road Users

Percentage of VRU fatalities
ESCAP Institutional Support

- Lead Road Safety Agencies
- Funding
- Global Framework Plan of Action
Road safety management

Fatality reduction target in ESCAP region, 2016

- Halve the number: 30%
- Specified reduction target: 32%
- Zero-death target: 5%
- Data not available: 34%

% of countries
The role of leadership in the implementation of Asia’s road safety initiatives (continued)

Lead agency of road safety funded in national budget in ESCAP, 2016

<table>
<thead>
<tr>
<th>Region</th>
<th>Funded</th>
<th>Not funded</th>
<th>NO lead agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>East and North-East Asia</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>South-East Asia</td>
<td>9</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>South and South-West Asia</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>North and Central Asia</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pacific</td>
<td>9</td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
Road safety management

Funding to implement road safety strategy, 2016

- East and North-East Asia: 3 (1 Fully, 1 Partially, 1 Not funded, 0 NO road safety strategy)
- South-East Asia: 8 (3 Fully, 1 Partially, 1 Not funded, 1 NO road safety strategy)
- South and South-West Asia: 6 (1 Fully, 1 Partially, 1 Not funded, 3 NO road safety strategy)
- North and Central Asia: 5 (1 Fully, 1 Partially, 1 Not funded, 2 NO road safety strategy)
- Pacific: 7 (1 Fully, 1 Partially, 1 Not funded, 1 NO road safety strategy)
## Global Framework Plan of Action- 2018

<table>
<thead>
<tr>
<th>Area</th>
<th>Legislation</th>
<th>Enforcement</th>
<th>Education</th>
<th>Technology</th>
<th>International Regulatory Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe user</td>
<td>Traffic rules drivers, cyclists, pedestrians</td>
<td>Lawful behavior ensured by police and inspectors</td>
<td>Awareness raising, training and examination</td>
<td>Supportive technology and equipment, rules reminders</td>
<td>UN RS legal instruments and resolutions, WP.1, SC.1, WP.15</td>
</tr>
<tr>
<td>Safe vehicle</td>
<td>Rules and standards for admission of vehicles to traffic</td>
<td>Certification and inspections by qualified inspectors</td>
<td>Awareness raising for users, training for inspectors</td>
<td>Supportive technology and equipment, compliance reminders</td>
<td>UN RS legal instruments and resolutions, WP.1, WP.29</td>
</tr>
<tr>
<td>Safe road</td>
<td>Standards for design, construction, maintenance and signage</td>
<td>Audit, assessment and inspection by qualified teams</td>
<td>Awareness raising for road managers, users, and for inspectors</td>
<td>Forging and self-explaining road design, intelligent road systems</td>
<td>UN RS legal instruments and resolutions, int. standards WP.1, SC.1</td>
</tr>
<tr>
<td>Effective post-crash</td>
<td>Standards for data collection post-crash response and investigation</td>
<td>Oversight of rescue services, investigators investigating crashes</td>
<td>First aid and rescue service training, investigators training</td>
<td>Supportive technology and equipment</td>
<td>Consolidated resolution, int. standards WP.1, SC.1</td>
</tr>
</tbody>
</table>
Safe User – enforcement on legislations

Number of countries rated as Good enforcement on laws, 2016

*Countries rated enforcement as “Good” if it is 8 or above on a scale of 0 to 10.
Safer roads

Audits or star rating required for new/existing road infrastructure in ESCAP, 2016

<table>
<thead>
<tr>
<th>Region</th>
<th>Star rating for new roads</th>
<th>Star rating for existing roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>East and North-East Asia</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
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<td>9</td>
<td>8</td>
</tr>
<tr>
<td>North and Central Asia</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Pacific</td>
<td>11</td>
<td>9</td>
</tr>
</tbody>
</table>
Vehicle safety standards

Proportion of countries applied UN vehicle safety standards, 2016

- Motorcycle anti-lock bracking system: 7%
- Child seats: 14%
- Pedestrian protection: 20%
- Electronic stability control: 16%
- Side impact: 20%
- Frontal impact: 20%
- Seat-belt anchorages: 23%
- Seat-belts: 23%

% of countries
Post-Crash

National emergency care access number in ESCAP region, 2016

- National, single number: 61%
- National, multiple number: 18%
- Partial coverage: 20%

% of countries
ESCAP Legislations and Enforcement

• Key risk factors

• Sub-regional comparisons
Population covered by laws on risk factors

Population covered by laws on 7 risk factors in ESCAP, 2016

- Drug-driving: 99.00%
- Mobile phone use: 93.48%
- Child restraint: 9.64%
- Seat belt: 95.52%
- Motorcycle helmet: 99.22%
- Drink-driving: 99.99%
- Speed limit: 99.99%

Total population
ESCAP Subregions

Percentage of countries with good legislations on 3 risk factors in sub-regions

- Speed: 91%
- Drink-driving: 100%
- Helmet: 100%

Legend:
- Pacific
- East and North-East Asia
- North and Central Asia
- South-East Asia
- South and South-West Asia
ESCAP Subregions

Percentage of countries with insufficient legislation on other 4 risk factors in sub-regions

- Seat-belt: 100% (Pacific), 80% (East and North-East Asia), 64% (North and Central Asia), 100% (South-East Asia), 100% (South and South-West Asia)
- Child restraint: 27% (Pacific), 25% (East and North-East Asia), 22% (North and Central Asia), 20% (South-East Asia), 10% (South and South-West Asia)
- Mobile phone use: 45% (Pacific), 90% (East and North-East Asia), 70% (North and Central Asia), 100% (South-East Asia), 100% (South and South-West Asia)
- Drug-driving: 91% (Pacific), 89% (East and North-East Asia), 80% (North and Central Asia), 90% (South-East Asia), 90% (South and South-West Asia)
Speed limit law

Predominant type of enforcement on speed limit in ESCAP, 2016

- East and North-East Asia: Automated (2), Manual (1), Manual and automated (1)
- South-East Asia: Automated (1), Manual (2), Manual and automated (2)
- South and South-West Asia: Automated (1), Manual (2), Manual and automated (1)
- North and Central Asia: Automated (5), Manual (2), Manual and automated (2)
- Pacific: Automated (3), Manual (2)
Speed limit law

Proportion of countries by urban speed limit range, 2016

- <=50km/h: 43%
- 51-70km/h: 34%
- 71-90km/h: 14%
- >90km/h: 5%
- Data not available: 5%

Fatality risk vs Collision speed (km/h)
Drink-driving law

Countries carried out random breath testing in ESCAP, 2016

- East and North-East Asia: 4
- South-East Asia: 9
- South and South-West Asia: 7
- North and Central Asia: 8
- Pacific: 8

- Random breath testing
- NO test
Alcohol-related road traffic death

% road traffic deaths involving alcohol in ESCAP, 2016
Motorcycle helmet law

Proportion of countries had restriction on children passengers on motorcycles in ESCAP region, 2016

- Prohibited under 12 yrs: 23%
- Prohibited under 10 yrs: 2%
- Prohibited under 8 yrs: 5%
- Prohibited until footrests can be reached: 2%
- Not restricted: 66%
Seat-belts law

Proportion of countries applied seat-belt law to riders, 2016

Drivers: 90% ESCAP, 100% Global, 100% EU countries

Front seat occupants: 87% ESCAP, 75% Global, 100% EU countries

Rear seat occupants: 62% ESCAP, 50% Global, 100% EU countries
Children restraints law example

Proportion of countries had restriction on children seated in front seat in ESCAP, 2016

Global best practice – not allowed

<table>
<thead>
<tr>
<th></th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowed in a child restraint</td>
<td>34%</td>
</tr>
<tr>
<td>Prohibited based on age</td>
<td>14%</td>
</tr>
<tr>
<td>Not restricted</td>
<td>52%</td>
</tr>
</tbody>
</table>
ESCAP regional Trends

- ESCAP website
- Editable for localized languages
- Two posters
Examples of technical support demands (RSF, proposal submissions from Asia-Pacific)

• Strengthening road safety lead agencies (3)
• Safer roads (2)
• Vulnerable Road Users (2)
• Safer driving skills (2)
• Vehicle Standards (2)
• Child Seats (2)
• Speed Management (1)
• Post Crash Intervention (1)
• Road crash data system (1)
Ways forward

• Quality road crash data

• Evidence-based policies and interventions

• Leaderships at all levels among all relevant sectors

• International and regional co-operations