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# **Road safety**

# A proposed ESCWA manual on road safety management systems

#### Summary

The present document was prepared pursuant to a recommendation issued at the fourteenth session of the Committee on Transport of the Economic and Social Commission for Western Asia (ESCWA), held in Amman on 9 and 10 November 2013. The recommendation invites the ESCWA secretariat to continue drafting a guide for the establishment of national road safety committees.

This document contains proposals on road safety in accordance with General Assembly resolution 64/255 on improving global road safety, which declared 2011-2020 the United Nations Decade of Action for Road Safety, and on the basis of the Global Plan for the Decade of Action for Road Safety 2011-2020 of the World Health Organization.

This document proposes an integrated system to operationalize national road safety agencies and their associated coordination mechanisms, including national higher councils and technical committees, responsible for taking, implementing and following up on decisions and coordinating with road safety stakeholders, including government bodies, the private sector and civil society organizations.

Representatives of member States are requested to consider and comment on the proposed manual so as to agree on a final draft for adoption and dissemination.

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#### Introduction

1. General Assembly resolution 64/255 on improving global road safety declared 2011-2020 the United Nations Decade of Action for Road Safety,<sup>1</sup> and requested the World Health Organization (WHO) and the United Nations regional commissions to prepare a plan of action of the Decade as a guiding document to support the implementation of its objectives. In response, WHO developed the Global Plan for the Decade of Action for Road Safety 2011-2020, which sets out the following five pillars as a basis of the framework for national activities: road safety management, safer roads and mobility, safer vehicles, safer road users and post-crash response.

2. In the context of assisting member States to implement activities to improve road safety in line with the above-mentioned pillars, the Economic and Social Commission for Western Asia (ESCWA) has organized several workshops under the first pillar on road safety management. The present document contains a guidance manual for member States to develop integrated systems for road safety management, based on operationalizing lead national road safety agencies and developing mechanisms to coordinate road safety activities at the national level, through national higher councils with broad powers to take decisions and follow up on the implementation of procedures to improve road safety. These efforts are part of an integrated vision rooted in adopting a national policy as a basis for a long-term strategy, action plans and programmes developed and followed up by specialized technical committees and consultative working groups comprising all road safety stakeholders, including government bodies, the private sector and civil society organizations.

3. A draft of the manual was presented at a regional workshop organized by ESCWA in Beirut, from 27 to 29 May 2014, in the context of the third United Nations Global Road Safety Week 2015.

4. The present documents reviews the Global Plan for the Decade of Action for Road Safety 2011-2020 and ESCWA efforts to follow up its implementation since 2010, focusing on road safety management. It also highlights some countries' experiences in road safety management and their common points, on the basis of which it identifies the components of the proposed integrated system for road safety management in ESCWA member States.

# I. GLOBAL PLAN FOR THE DECADE OF ACTION FOR ROAD SAFETY 2011-2020

5. In response to General Assembly resolution 64/225, WHO prepared the Global Plan for the Decade of Action for Road Safety 2011-2020,<sup>2</sup> which focuses on the overall goal of the Decade of Action: to stabilize then reduce the forecast level of road traffic fatalities around the world by 2020. This will be attained through the following:<sup>3</sup>

- Developing and implementing sustainable road safety strategies and programmes;
- Setting an ambitious yet feasible target for reduction of road fatalities by 2020 by building on the existing frameworks of regional casualty targets;
- Strengthening the management infrastructure and capacity for technical implementation of road safety activities at the national, regional and global levels;
- Improving the quality of data collection at the national, regional and global levels;

<sup>&</sup>lt;sup>1</sup> General Assembly resolution 64/255 on improving global road safety. Available from <u>http://daccess-dds-ny.un.org/</u> doc/UNDOC/GEN/N09/477/13/PDF/N0947713.pdf?OpenElement.

<sup>&</sup>lt;sup>2</sup> WHO, Global Plan for the Decade of Action for Road Safety 2011-2020.

<sup>&</sup>lt;sup>3</sup> Ibid, p. 10.

- Monitoring progress and performance on a number of predefined indicators at the national, regional and global levels;
- Encouraging increased funding to road safety and better use of existing resources, including through ensuring a road safety component within road infrastructure projects.

6. The Global Plan sets out the following five pillars for the framework of national activities to achieve the goals of the Decade of Action:

- (1) Road safety management;
- (2) Safer roads and mobility;
- (3) Safer vehicles;
- (4) Safer road users;
- (5) Post-crash response.

7. The present document comes under the first pillar on road safety management.<sup>4</sup> The following elaborates on the related activities:<sup>5</sup>

#### Activity (1)

Adhere to and/or fully implement the major United Nations road safety related agreements and conventions; and encourage the creation of new regional instruments similar to the European Agreement concerning the Work of Crews of Vehicles engaged in International Road Transport (AETR), as required, including:

- Convention on Road Traffic, of 8 November 1968, aiming at facilitating
- International road traffic and at increasing road safety through the adoption of
- Uniform road traffic rules;
- Convention on Road Signs and Signals, of 8 November 1968, setting up a set of
- Commonly agreed road signs and signals;
- AETR, of 1 July 1970, to be used as a model the creation of regional legal instruments.<sup>6</sup>

#### Activity (2)

Establish a lead agency (and associated coordination mechanisms) on road safety involving partners from a range of sectors through:

- Designating a lead agency and establishing related secretariat;
- Encouraging the establishment of coordination groups;
- Developing core work programmes.

<sup>&</sup>lt;sup>4</sup> All proposed national activities are set out in the Global Plan for the Decade of Action for Road Safety 2011-2020 and in documents of the twelfth meeting of the ESCWA Committee on Transport, held in Beirut from 17 to 19 May 2011(item 6 of the provisional agenda on progress achieved in implementing the components of the Integrated Transport System in the Arab Mashreq). Available from www.escwa.un.org/information/meetingdetails.asp?referenceNUM=1562e.

<sup>&</sup>lt;sup>5</sup> The Arabic text of the Global Plan differs from the English and French versions in that it only contains five activities instead of six, given that the first activity on implementing the major United Nations road safety related agreements and conventions was omitted in the Arabic text. The Arabic version is available from <u>www.who.int/roadsafety/decade\_of\_action/plan/</u> <u>arabic.pdf?ua=1</u>. The English version is available from <u>www.who.int/roadsafety/decade\_of\_action/plan/plan\_english.pdf?ua=1</u>.

<sup>&</sup>lt;sup>6</sup> The European Agreement Concerning the Work of Crews of Vehicles Engaged in International Road Transport (AETR) aims to reduce the risks of road accidents resulting from tiredness by limiting to nine hours the daily period that lorry and bus drivers can work, divided into two shifts not exceeding four and a half hours each, punctuated by a break of no less than 45 minutes. Monitoring is carried out through a tachograph (paper disc previously).

# Activity (3)

Develop a national strategy (at a cabinet or ministerial level) coordinated by the lead agency through:

- Confirming long-term investment priorities;
- Specifying agency responsibilities and accountabilities for development and implementation of core work programmes;
- Identifying implementation projects;
- Building partnership coalitions;
- Promoting road safety management initiatives such as the new ISO traffic safety management standard ISO 39001;
- Establishing and maintaining the data collection systems necessary to provide baseline data and monitor progress in reducing road traffic injuries and fatalities and other important indicators such as cost, etc.

# Activity (4)

Set realistic and long-term targets for national activities based on the analysis of national traffic crash data through:

- Identifying areas for performance improvements;
- Estimating potential performance gains.

# Activity (5)

Work to ensure that funding is sufficient for activities to be implemented through:

- Building business cases for sustained funding based on the costs and benefits of proven investment performance;
- Recommending core annual and medium-term budgetary targets;
- Encouraging the establishment of procedures for the efficient and effective allocation of resources across safety programs;
- Utilizing 10 per cent of infrastructure investments for road safety;
- Identifying and implementing innovative funding mechanisms.

# Activity (6)

Establish and support data systems for on-going monitoring and evaluation to include a number of process and outcome measures, including:

- Establishing and supporting national and local systems to measure and monitor road traffic deaths, injuries and crashes;
- Establishing and supporting national and local systems to measure and monitor intermediate outcomes, such as average speed, helmet-wearing rates, seat-belt wearing rates, etc.;
- Establishing and supporting national and local systems to measure and monitor outputs of road safety interventions;

- Establishing and supporting national and local systems to measure and monitor the economic impact of road traffic injuries; and
- Establishing and supporting national and local systems to measure and monitor exposure to road traffic injuries.

# II. MONITORING AND EVALUATING THE ACTIVITIES OF THE DECADE OF ACTION FOR ROAD SAFETY

8. The Global Plan for the Decade of Action for Road Safety sets out several indicators under each of its five pillars, so as to monitor progress towards achieving the goals of the Decade of Action. Regarding the first pillar on road safety management, the Global Plan identifies the following core and optional indicators.

# **Core indicators**

- Number of countries which have adhered to the United Nations road safety related agreements and conventions;
- Number of new regional road safety legal instruments developed (and number of countries participation in them);
- Number of countries which have a clearly empowered agency leading road safety;
- Number of countries with a national strategy;
- Number of countries with time-based road safety targets;
- Number of countries with data systems in place to monitor progress in achieving road safety targets;
- Number of countries that collect annual road traffic crash data consistent with internationally accepted definitions.

# **Optional indicators**

- Number of countries that have dedicated funds to implement their road safety strategy;
- Number of countries that have made progress towards achieving their defined targets.

9. ESCWA has followed up on the implementation of the activities of the Decade of Action in its member States, in accordance with the Global Plan pillars, through the sessions of the Committee on Transport and several specialized regional workshops organized for this purpose. The annex to the present document details these follow-up activities.

# III. GLOBAL EXPERIENCES IN ESTABLISHING NATIONAL ROAD SAFETY MANAGEMENT SYSTEMS

10. Under a World Bank initiative, the experiences of several countries in road safety management were reviewed; the results were published in 2009 in a comprehensive report containing guidelines on reviewing national capacity for road safety management.<sup>7</sup> The report shows that there is no single tailor-made approach to road safety management that can be applied in all countries, and that the organizational structure of road safety management and the work of specialized lead road safety agencies are affected by countries' legislative environments. The following sets out key experiences regarding the establishment of lead road safety agencies.

<sup>&</sup>lt;sup>7</sup> Tony Bliss and Jeanne Breen, Country guidelines for the conduct of road safety capacity reviews and the specification of lead agency reforms, investment strategies and safe system projects, World Bank Global Road Safety Facility, Washington, D.C., 2009.

Stand-alone lead agency (New Zealand): In 1993, New Zealand established a stand-alone agency for 11. road safety known as the Land Transport Safety Authority, tasked with applying road safety procedures by developing and implementing strategies through annual agreements with the Transport Minister. The Authority comprises 656 staff members divided across the following six business groups: Strategy, Communications and Performance; Planning and Investment; Highways and Network Operations; Access and Use; Organizational Support; and People and Capability. The biggest group is Access and Use comprising 451 staff members divided into the vehicle registration office, the vehicle specifications unit and regional offices. The National Road Safety Committee oversees the Authority's work. An annual planning meeting is held for Authority chief executive officers and other road safety management stakeholders in New Zealand, as well as quarterly follow-up meetings. Operational bodies coordinate the National Road Safety Working Group that comprises high-level employees involved in road safety; quarterly meetings are held in preparation for meetings of the National Road Safety Committee. Specialized working groups coordinate national programmes on road safety and on improving trade vehicle safety. Advisory working groups on road safety have also been formed. It should be noted that the Authority is the secretariat for these advisory committees and subcommittees.

12. Transport Ministry as lead department: this is the most widespread practice in most European countries, including the Netherlands and the United Kingdom of Great Britain and Northern Ireland. In the United Kingdom, the Roads and Vehicle Safety and Standards Directorate under the Transport Ministry fulfils the role of lead road safety agency concerned with roads, vehicle safety and standards. Other related directorates come under the Ministry; they are responsible for driving and vehicle licences and inspection and national roads. The Directorate comprises around 80 staff members across the following four divisions: road safety strategies, driver safety, transport and communications technology, and road management. In contrast to New Zealand, the United Kingdom does not have a mechanism for national coordination and for taking decisions on road safety other than Parliament.

13. In the Netherlands, the Roads and Traffic Safety Department fulfils the tasks of lead road safety agency, under the Directorate-General for Passenger Transport of the Ministry of Transport, Public Works and Water Management. Road safety is one of the five key responsibilities of the Ministry. The Department comprises 24 staff members across the following three divisions: driving performance policies; vehicle safety; and strategies, programmes and coordination. The Netherlands has a national council to coordinate road safety activities, comprising representatives of government bodies concerned with road safety and representatives of the private sector and civil society organizations. The council plays an advisory role in discussing and adopting the road safety policy of the Dutch Ministry of Transport, and coordinates activities between the Ministry and bodies involved in road safety in other ministries.

14. Road authority as lead agency (Sweden and the state of Victoria, Australia): Since 1993, the lead agency responsible for road safety in Sweden is the Swedish Road Administration under the Ministry of Industry, Employment and Communications. It comprises around 2,900 staff members across several central departments and seven regional offices. The Administration developed the Vision Zero Initiative on road safety, adopted by Parliament in 1997, which is based on an ethical principle that persons should not die or be seriously injured as a result of road accidents and on the need to ensure in the long term that no person is killed or seriously injured on Swedish roads. The Initiative's activities are coordinated and implemented by a national council comprising eight institutions, which meets six times a year.

15. In the Australian state of Victoria, the state road company, VicRoad, has overseen road safety activities since 1989 by preparing and implementing road safety programmes in addition to its other responsibilities, including managing land transport, organizing traffic, registering vehicles and issuing driving licences. The company's road safety department comprises 55 full-time staff members and has developed a strategy for the period 2013-2022 to reduce the number of road deaths by 30 per cent, and to less than 200 annually by the end of the period.<sup>8</sup> The Ministerial Road Safety Council coordinates road safety activities in Victoria and comprises ministers responsible for transport, the police, ambulance services, as

<sup>&</sup>lt;sup>8</sup> See <u>www.vicroads.vic.gov.au/about-vicroads/our-strategy/road-safety-strategy</u>.

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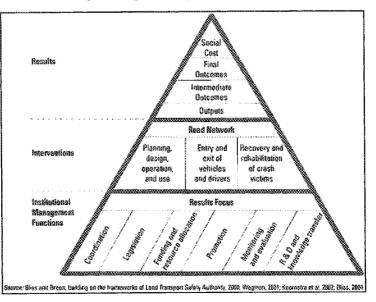
well as a committee on road accidents. The Council holds four meetings a year, chaired by its ministers on a rotating basis. The Road Safety Executive Group participates in the meetings, and comprises executive officers from the ministries of the Council. The Executive Group coordinates the work and comprises high-level employees from Council ministries, in addition to the ministries of education, training and humanitarian affairs, and holds monthly meetings chaired by its members on a rotating basis.

16. Stand-alone lead agency in Head of State's Department (state of Western Australia): the road safety bureau under the Premier of Western Australia fulfils the role of lead road safety agency in the state. It manages and coordinates road safety activities and acts as secretariat to the Ministerial Council on Road Safety, headed by the Premier, and comprises the ministers of the interior, ambulance services, planning, infrastructure, local governance, education, training and public health. The bureau also acts as secretariat to the state's Road Safety Council, which provides advisory services to the Government on programmes and initiatives to improve road safety. The bureau comprises 21 full-time staff members across three main divisions: coordination, policy and strategy, and education and communication.

# IV. COMMON POINTS BETWEEN COUNTRIES' EXPERIENCES IN ROAD SAFETY MANAGEMENT

17. The information in chapter III shows that there is no single tailor-made approach to road safety that can be applied in all countries. Lead road safety management agencies differ according to countries' social, economic, legal and political situations. The aforementioned World Bank report highlights these differences, and also sets out several common points between countries' experiences, notably the existence of a government agency with a clear mandate in road safety management. The tasks of this agency include proposing policies, strategies and action plans, and following up on their implementation through a set of coordination mechanisms at the national level, such as technical committees that make and discuss proposals with all road safety stakeholders, and higher councils that take decisions and allocate resources for their implementation.

18. The World Bank report highlights the importance of a lead governmental road safety agency and its associated coordination mechanisms to complete basic institutional management functions. These functions are fulfilled through necessary interventions, which in turn achieve desired results in improving road safety. Figure 1 shows the relationship between these three components.



# Figure 1. Road safety management system according to Bliss and Breen

Source: Bliss and Breen, building on the frameworks of Land Transport Safety authority, 2000; Wegman, 2001; Koornstra and others, 2002; Bliss, 2004.

19. The World Bank report provides a detailed explanation of the seven functions carried out by a road safety management system, summarized as follows.

#### (a) Results focus

This is the main institutional management function; if there is no short and long term focus on results then the other functions lose their coherence and consistency. Goals are determined after an accurate examination is conducted on road safety and on available national resources and capacity (human, administrative and financial). Expected results can be gradually increased to achieve the concept of a "safe system".

#### (b) Coordination

Coordination is necessary between all sectors concerned with road safety. It should be horizontal across central government, vertical from central to regional and local levels of government, and between representative bodies such as national parliaments and local councils. The aim of coordination is to build a solid partnership between all road safety stakeholders, including the Government, the private sector and civil society, to ensure a joint vision of road safety.

#### (c) Legislation

This includes periodic reviews of the legislative framework on road safety, ensuring coherence between the various related legal instruments and developing necessary legislation to improve road safety.

#### (d) Funding and resource allocation

This function is based on ensuring the presence of a sufficient and sustainable mechanism to finance road safety activities, and review all traditional and non-traditional financing sources, such as tax revenues and private funds to finance road safety activities.

#### (e) Promotion

Sustainable commitment from Government on road safety cannot be achieved by simply developing and implementing programmes. These programmes must be promoted and their positive aspects must be highlighted to secure stakeholder involvement. Promotion can be undertaken through effective social media policies at all levels, including awareness-raising campaigns on road safety launched by the media.

# (f) Monitoring and evaluation

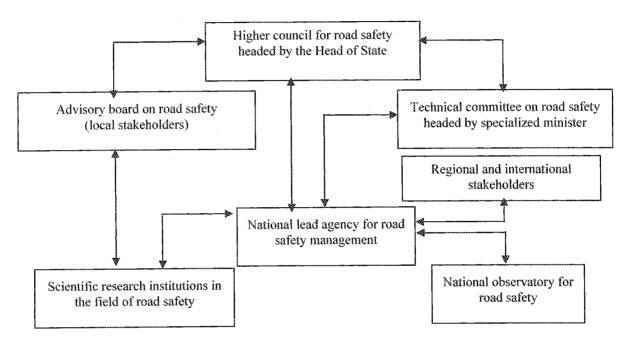
Periodic monitoring of progress in road safety must be conducted to evaluate results and amend plans and programmes on that basis. Progress is monitored through final indicators, including road fatalities and injuries and traffic accidents, and intermediate indicators such as speed limits on inner-city roads and user rates of seatbelts in vehicles and helmets on motorcycles, among other indicators that clarify the extent to which road safety goals are being achieved.

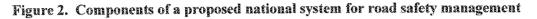
## (g) Research and development and knowledge transfer

Research and development play a key role in formulating strategies to improve road safety and in implementing them on the basis of proven facts. This function's activities include national capacity-building on multidisciplinary research on road safety, and developing long-term strategies in the field of road safety implemented through plans and annual work programmes based on countries' experiences in tackling road safety. These activities must be allocated the necessary financial and human resources through international and regional cooperation.

# V. PROPOSED MODEL FOR ESTABLISHING NATIONAL SYSTEMS FOR ROAD SAFETY MANAGEMENT IN ESCWA MEMBER STATES

20. After examining the various types of road safety management systems in several countries across the world, the present document proposes in figure 2 a model national system for road safety management in ESCWA member States.





21. Figure 2 shows the key components of a proposed national system for road safety management and the relationships between these components, explained in detail as follows.

# A. HIGHER COUNCIL/NATIONAL COUNCIL FOR ROAD SAFETY

22. The council is established at the governmental level and its meetings are chaired by the Head of State. It consists of the following ministers involved in road safety issues:

- Transport Minister;
- Minister of Public Works;
- Minister of the Interior;
- Justice Minister;
- Health Minister;
- Education Minister;
- Information Minister.

23. The council holds annual or biannual meetings, and special meetings can be held when necessary. Its mandate and responsibilities include the following:

- Approve national road safety policy;
- Adopt a national strategy on road safety;
- Propose bills and legislative amendments;
- Take decisions on specifications and standards to improve road safety;

- Endorse annual and multiyear action plans;
- Approve and monitor funding to implement plan activities;
- Oversee, coordinate, monitor and follow up.

# B. TECHNICAL/MINISTERIAL COMMITTEE ON ROAD SAFETY

24. The committee is headed by a minister specializing in road safety, who is also responsible for enacting traffic and vehicle laws. i.e. either the Interior Minister or the Transport Minister, according to the situation in each country and follow-up responsibilities of national traffic laws. The committee comprises the following:

- Representatives of the ministries of the higher council for road safety;
- Representatives of related government bodies;
- Representatives of associated trade unions and bodies;
- Representatives of civil society organizations involved in road safety;
- Academics and experts.

25. The technical committee on road safety holds monthly or quarterly meetings, and has the following responsibilities:

- Propose and discuss national policy on road safety;
- Propose and discuss a national strategy on road safety;
- Propose and discuss legislative amendments and important regulatory decisions;
- Approve the goals of the annual and multiyear action plans;
- Periodic follow up of road safety indicators and plan implementation;
- Take quick decisions to implement procedures on improving road safety;
- Coordinate between various stakeholders to implement action plans.

# C. NATIONAL LEAD AGENCY FOR ROAD SAFETY

26. The national lead agency for road safety is the cornerstone of the road safety management system in any country, especially given that the higher council and technical committees do not participate in practical activities; they are only involved in administrative tasks and in discussion and coordination activities prior to approving draft decisions prepared by lead road safety agencies. These agencies are governmental institutions comprising full-time specialized staff members who tackle road safety issues. They monitor road safety indicators and data and use them to examine the status quo and propose policies, strategies and action plans to sustainably improve road safety.

27. The aforementioned countries' experiences show that the lead agency for road safety can come under various administrative entities and can take on many forms,<sup>9</sup> including a stand-alone agency, the Transport Ministry itself, a road authority or a stand-alone agency in the Head of State's department.

28. In some cases, the lead agency can take on the responsibilities of the roads and vehicle safety and driving licences directorate of the Interior Ministry, or can act as a secretariat to the higher council for road safety under the Head of State. Whatever its form, it is necessary to clearly and accurately identify the agency's responsibilities and mandate in its establishment instrument, including the following:

• Depend on the national ministerial observatory for road safety to collect and disseminate necessary information so as to prepare, implement and evaluate a national policy on road safety;

<sup>&</sup>lt;sup>9</sup> Bliss and Breen, 2009.

- Formulate and coordinate strategies and action plans to implement a national policy on road safety;
- Govern and coordinate all legislative and regulatory work on traffic law;
- Formulate a policy on safe road facilities for all networks, and oversee its implementation;
- Formulate regulatory instructions on equipping roads, lorries and traffic signals;
- Draft technical instructions for transport vehicles;
- Draft a highway code;
- Lead research activities and general and sectoral studies on road safety;
- Assist ministries in implementing road safety activities;
- Identify and implement a media and public communication policy;
- Participate in the national policy to implement traffic laws and coordinate the efforts of ministries in this field;
- Design investigation systems for road accidents and traffic violations, and oversee their implementation;
- Follow up on technological progress and disseminate its benefits in the field of road safety.

# D. NATIONAL OBSERVATORY FOR ROAD SAFETY

29. Road safety efforts must have a trusted source of data and information on road accidents and their resulting financial losses, injuries and deaths. Generally, road accident data is taken from accident reports and individual statistics forms prepared by police personnel based on these reports.

30. To coordinate data and information on road accidents issued by police personnel and to compare them with aggregated data from other sources, such as rescue and ambulance services and insurance companies, it is necessary to establish a national observatory for road safety, under the lead road safety agency, as a practical tool to collect, analyse and publish data. The national observatory undertakes the following:

- Collecting statistical data on road accidents and their local and national repercussions; organizing, processing and publishing these data periodically (monthly, quarterly, annually); and comparing them globally;
- Developing and modernizing an integrated data system for road safety management, which combines several multifaceted components of road safety, including the following:
  - Road traffic crash systems;
  - Roadway inventory systems;
  - Traffic characteristic system;
  - Driver licensing and driver history system;
  - Vehicle registration system;
- Overseeing and following up on road accident studies;
- Evaluating road safety procedures that have been implemented or are underway.

31. According to a 2015 report by WHO on global road safety,<sup>10</sup> there are six Arab countries with reliable systems for recording road fatalities, namely Bahrain, Egypt, Kuwait, Palestine, Qatar and Oman. Other Arab countries, 13 in total, lack a similar type of system. Consequently, WHO estimates the death toll from road accidents in these countries using a statistical model for this purpose. This highlights the great effort needed in most Arab countries to produce reliable and trusted data on road deaths for use in evaluating road safety, so as to formulate policies, strategies and action plans to improve it.

# E. RESEARCH INSTITUTIONS IN ROAD SAFETY

32. Several developed countries have research institutions specializing in road safety and transport, which conduct scientific studies to improve understanding of road safety and identify priority activities to reduce road accidents more effectively and efficiently.

33. Until such research institutions are established in ESCWA member States, universities could be requested to conduct studies into various aspects of road safety under higher education research programmes, such as Masters and Doctorates. The following are areas of road safety in need of research:

- Macroscopic modelling of traffic accidents, either by mapping the temporal evolution of road accidents in a country and developing mathematical models that link road safety indicators to various aggregate indicators that reflect a country's development, or by transversally comparing road safety indicators in several countries to attempt to link road safety to key socioeconomic factors that differentiate countries;
- Accidentology that examines in detail the mechanisms behind accidents and attempts to determine the chain of events in a certain time and place that lead to accidents. Areas of analysis under this science focus on directly gathering data on road accidents or on studies derived from medical science, such as epidemiological and clinical studies;
- Engineering research on road crash localization, especially using geographic information systems. This research aims to determine accident hotspots and examine their relationship to accident circumstances, traffic conditions and the surrounding environment, so as to identify risk factors and develop procedures targeting all traffic system elements, namely drivers, road users, roads, the surrounding environment and vehicles;
- Medical studies on evaluating human tolerance to shocks and the damage caused by vehicle parts to drivers' bodies upon impact. Car manufacturers have benefited from these studies to build safer vehicles in terms of protecting passengers in an accident situation. Road engineers have also benefited in terms of producing a wide range of road safety equipment that reduces the impact force from accidents;
- The economic circuit of traffic accidents to evaluate their economic cost and identify resulting financial flows and the transfer of liquidity to compensate funds, institutions and individuals involved in road accidents;
- Driver behaviour studies on drivers' neuro-psychological characteristics, such as central and peripheral vision and their role when driving, reaction times and the factors affecting them, factors affecting driver's performance while driving, and information absorbed and processed by drivers from their direct environment and their awareness of this. Driver behaviour studies coincide with research on the relationship between human beings and machines and studies to design industrial systems in line with human beings' psychological and physiological characteristics;

<sup>&</sup>lt;sup>10</sup> WHO, Global Status Report on Road Safety, 2015, p. 73. Available from <u>www.who.int/violence\_injury\_prevention/road\_safety\_status/2015/en</u>.

 Social studies on road user knowledge of legal constraints on personal liberties resulting from increased safety levels of road transport systems, such as maximum speed limits, the obligation to wear seatbelts and helmets, and restrictions on vehicle size and weight. Social studies also address the position of various road users on laws that provide these restrictions and the extent they voluntarily adhere to them, and the application of road safety regulation to lorry and bus drivers and their relationship to work conditions.

34. In this context, the lead road safety agency and its related coordination mechanisms must identify scientific research priorities in the field of road safety according to country needs, and must provide the necessary funding for universities to undertake studies, given their importance in improving national policymaking on road safety and directing strategies and action plans to achieve tangible results.

#### F. NATIONAL ADVISORY BOARD ON ROAD SAFETY

35. The national advisory board on road safety comprises a wide range of persons involved in road safety, including the following:

- Members of the Senate, if one exists;
- Elected members of parliament;
- Regional and provincial representatives;
- Heads of government institutions involved in road safety;
- Businesspersons and private sector representatives;
- Media representatives;
- University lecturers and researchers specializing in road safety aspects.

36. The advisory board meets periodically and is chaired by a public figure appointed by the Head of State or a specialized minister. The council is a platform for open dialogue to evaluate public policy on road safety and make proposals to the authorities for its improvement.

# VI. CONCLUSIONS

37. The Global Plan for the Decade of Action for Road Safety 2011-2020 proposes the implementation of activities aimed at improving road safety in all countries across the world. These activities cannot achieve their desired goals without governance from integrated national systems for road safety management, through a specialized governmental agency that evaluates road safety and propose policies, strategies and action plans to improve it in each country. These proposals are then endorsed and followed up by a national higher council, following advisory discussions by technical committees and consultative groups that include all road safety stakeholders.

38. Whatever the form of the lead road safety agency and its governing body, it must undertake the following seven institutional management functions: results focus; coordination; legislation; funding and resource allocation; promotion; monitoring and evaluation; and research and development and knowledge transfer.

39. To ensure efficiency and effectiveness, instruments establishing lead agencies and their accompanying coordination mechanisms must be issued by high-level national councils and technical committees, and must clearly state their responsibilities, mandates and accountability procedures. This can be done when traffic laws are amended or by issuing legal texts or regulatory decisions when necessary.

#### Annex Annex

# ESCWA FOLLOW-UP ACTIVITIES ON THE DECADE OF ACTION FOR ROAD SAFETY

ESCWA has continued implementing activities of the Decade of Action for Road Safety 2011-2020 in its member States, on the basis of the pillars set out in the Global Plan for the Decade of Action for Road Safety 2011-2020, through the sessions of the ESCWA Committee on Transport and several specialized regional workshops organized for that purpose, including the following:

1. Regional workshop to launch the United Nations Decade of Action for Road Safety, held in Beirut on 17 May 2011 concurrently with the twelfth session of the Committee on Transport. The workshop tackled the following:<sup>1</sup>

- First Global Ministerial Conference on Road Safety: Time for Action (Moscow Declaration), held in Moscow on 19 and 20 November 2009;
- Global Plan for the Decade of Action for Road Safety 2011-2020.

2. Twelfth session of the Committee on Transport, held in Beirut from 17 to 19 May 2011, at which the following recommendations on road safety were issued:<sup>2</sup>

- Invite member States to add the issue of road safety to their priorities and urgent issues;
- Invite member States to work and coordinate with the ESCWA secretariat to implement the Global Plan for the Decade of Action for Road Safety 2011-2020 and to develop a schedule for implementing the Moscow Declaration (19-20 November 2009);
- Invite member States to expedite the establishment and operationalization of national committees/institutions/councils comprising all stakeholders involved in improving road safety;
- Invite member States to take into account the importance of enhancing financial and human resources to improve road safety in the Arab region;
- Invite ESCWA to continue providing technical support to member States to improve road safety.

3. Thirteenth session of the Committee on Transport, held in Beirut from 24 to 26 April 2012, at which the following recommendations on road safety were issued:<sup>3</sup>

- Invite member States to add the issue of road safety to their priorities and urgent issues;
- Invite member States to work and coordinate with the ESCWA secretariat to implement the Global Plan for the Decade of Action for Road Safety 2011-2020 and to develop a schedule for implementing the Moscow Declaration (19-20 November 2009);
- Invite ESCWA to continue providing technical support to member States to improve road safety;
- Invite ESCWA to prepare a guidance manual on establishing national bodies or committees on road safety.

<sup>&</sup>lt;sup>1</sup> Workshop documents are available from <u>www.escwa.un.org/information/meetingdetails.asp?referenceNum=1580E</u>.

<sup>&</sup>lt;sup>2</sup> Paragraph 19-23 on road safety of the report of the twelfth session of the Committee on Transport are available from <u>www.escwa.un.org/information/meetingdetailsAR.asp?referenceNUM=1562a</u>.

<sup>&</sup>lt;sup>3</sup> Paragraphs 20-23 on road safety of the report of the thirteenth session of the Committee on Transport are available from <u>www.escwa.un.org/information/meetingdetails.asp?referenceNum=1808E</u>.

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4. Regional workshop on implementing the Global Plan for the Decade of Action for Road Safety 2011-2020, organized by ESCWA in Amman on 14 and 15 November 2012, in collaboration with the Arab Union of Land Transport. The workshop reviewed several papers on the road safety situation in member States and experiences in building the capacity of road safety specialists, especially the experience of Saint Joseph University in Beirut in establishing a Master's programme in road safety management in cooperation with Renault. The workshop aimed to undertake the following:<sup>4</sup>

- Familiarize Arab countries with the details of the Global Plan by building national capacities in formulating plans and strategies to implement the Global Plan, including a proposal on establishing/operationalizing national committees/institutions/councils comprising all relevant stakeholders so as to improve road safety and discuss methods to finance activities related to implementing the Global Plan;
- Discuss national preparations and joint activity proposals for the second United Nations Global Road Safety Week 2012;
- Discuss road safety and progress in road safety management in member States to achieve these goals.

5. Fourteenth session of the Committee on Transport, held in Amman on 9 and 10 October 2013, at which some recommendations issued at the twelfth session were recalled as follows:<sup>5</sup>

- Invite member States to add the issue of road safety to their priorities and urgent issues;
- Invite member States to work and coordinate with the ESCWA secretariat to implement the Global Plan for the Decade of Action for Road Safety 2011-2020 and to develop a schedule for implementing the Moscow Declaration (19-20 November 2009);
- Invite ESCWA to continue providing technical support to member States to improve road safety.

6. Regional workshop on road safety, organized by ESCWA under the activities of the third United Nations Global Road Safety Week, from 27 to 29 May 2015, in collaboration with the Global Road Safety Partnership and Saint Joseph University in Beirut. Participants reviewed road safety in Arab countries, challenges faced my member States in implementing the Global Plan, and the role of ESCWA in building capacities in the field of road safety management. ESCWA presented its vision on establishing integrated national systems for road safety management in Arab countries.<sup>6</sup> The workshop reached the following recommendations:

- Invite member States to establish lead agencies for road safety management and to expedite the establishment and operationalization of national committees/councils for road safety comprising all stakeholders so as to improve road safety;
- Invite member States to develop and standardize data and information collection systems for road accidents, especially data on road deaths and injuries, in accordance with international standards;
- Invite member States to standardize indicators for measuring road safety progress;
- Invite member States to allocate financial and human resources to improve road safety;

<sup>&</sup>lt;sup>4</sup> Workshop documents are available from <u>www.escwa.un.org/information/meetingdetailsAR.asp?referenceNUM=1934a</u> (in Arabic).

<sup>&</sup>lt;sup>5</sup> Paragraphs 14-17 of the report of the fourteenth session of the Committee on Transport are available from <u>www.escwa.org.lb/information/meetingdetails.asp?referenceNum=3205E</u>.

<sup>&</sup>lt;sup>6</sup> Workshop documents are available from <u>www.escwa.un.org/information/meetingdetails.asp?referenceNUM=3654e</u>.

- Invite member States to expedite the implementation of the Global Plan and to commit to implementing the Moscow Declaration of 20 November 2009;
- Invite member States to effectively participate through mutlisectoral delegations in the second Global High-Level Conference on Road Safety (Brasilia, November 2015);
- Invite member States to collaborate and coordinate amongst themselves, with assistance from ESCWA and the WHO Regional Office for the Eastern Mediterranean, to reach a unified position on the Brasilia Declaration;
- Affirm the need to build national capacities in member States through research centres and academic training programmes to increase the efficiency of national cadres in the field of road safety;
- Invite ESCWA to submit this meeting's recommendations to the Committee on Transport at its sixteenth session, to be held in the last quarter of 2015, for discussion and adoption by the Committee before submission to the ESCWA ministerial session for adoption;
- Invite ESCWA and other specialized international organizations to continue providing technical support for member States so as to improve road safety.

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