

# MAKING THE ROAD SECTOR A KEY VEHICLE FOR SUSTAINABLE DEVELOPMENT



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# **MAKING THE ROAD SECTOR A KEY VEHICLE FOR SUSTAINABLE DEVELOPMENT**



**Bangkok, 2016**



## FOREWORD



Roads are the oldest and most popularly used mode of transport and have been responsible for catalyzing human civilization and supporting economic and social development globally throughout the centuries. Roads provide convenience and flexibility. Whether directly connecting goods, people and services door-to-door or to other forms of transportation such as maritime, air and railway, effective road networks are a vital to prosperity of any economy.

The 2030 Agenda for Sustainable Development is bringing new challenges to the road sector around the world. Roads cut across many of the sustainable development issues as they can be an enabler of economic prosperity. However, there are many road related issues that must be addressed in order for roads to support growth that is inclusive and sustainable.

As the world's second largest consumer of energy, the transport sector consumes 28 per cent of total global energy; and roads consume more than 77 per cent of this total. . Correspondingly, road transport is responsible for three quarters of the 23 per cent of the global greenhouse gas emissions released by the transport sector as a whole. If current trends continue, by 2050 road sector energy consumption will increase by 63 per, and to greenhouse gas emissions from road transport will also increase by 63 per cent.

The road sector must also prioritize improving road safety. Road accidents are the leading cause of fatalities in Asia and the Pacific. In 2013, 1.25 million people died from road traffic crashes and another 20-50 million suffered from non-fatal injuries. To bridge the gap between public health and transportation, Sustainable Development Goal (SDG) 11 calls for the improvement of road safety by 2030 and Goal 3 aims to halve global deaths and injuries from road traffic accidents by 2020. Recent studies on the global trends of road fatalities demonstrate that these SDG targets require our urgent attention if they are to be achieved.

In addition, road transport internationalization, intelligent transport systems, the transport of dangerous goods, and road security add to the myriad of insurmountable challenges the sector faces.

The 2030 Agenda provides an opportunity for all countries to work together to transform the road sector for the benefits of all. Creating and implementing innovative sustainable road solutions will depend on leveraging regional and international collaboration. ESCAP's member States have called for regional solutions. Therefore, establishing an international intergovernmental road organization is one approach that could help fill the existing global institutional gaps and help ensure the sustainability of the road sector moving forward.

This report explores the viability of such an international road organization to promote coordinated strategies, harmonized rules and standards, share best practices and provide

technical assistance in the road sector. It demonstrates the need for such an organization and provides an analysis of the costs, benefits and possible functions of such an organization, as well as outlines a road map for its implementation.

A prosperous Asia-Pacific region requires road development that is inclusive and sustainable. ESCAP stands ready to enable its member States to enhance their collaboration on road and transport matters, so that as a region we can achieve the Sustainable Development Goals.

A handwritten signature in black ink, appearing to read 'Shamshad Akhtar', with a stylized flourish at the end.

**Dr. Shamshad Akhtar**

Under-Secretary-General of the United Nations and

Executive Secretary of the Economic and Social Commission for Asia and the Pacific

## EXECUTIVE SUMMARY

Roads are the oldest and the most popularly used mode of transport. They catalyzed human civilization and have been supporting economic and social development of the world. As the most convenient and flexible mode, road transport provides door-to-door delivery of all kinds of goods by its own. It also supports door-to-terminal movements of maritime, air and railway goods to enable them to function.

The study by the International Road Federation (IRF) on the Socio-Economic Benefits of Roads in Europe showed that trucks carried nearly 80 per cent of all goods measured in tonne-kilometre. The road sector contributed approximately 22 per cent of gross domestic product (GDP) to the EU 25<sup>1</sup> economy and 5 per cent of the EU 25 employment. Vehicle related taxes accounted for 10.2 per cent of the total fiscal income of some European countries.

However, the road sector around the world is facing overwhelming challenges under the sustainable development agenda. Addressing those challenges needs strong intergovernmental support at the international level to promote coordinated strategies, recommend harmonized rules, set common standards, recommend best practices, suggest good procedures, provide technical assistance and build members' capacity. They need to be addressed in one comprehensive platform.

Other modes of transport are supported by their respective intergovernmental bodies. However, equivalent intergovernmental support to the road sector is very limited. What is missing in the road sector is strong intergovernmental support. This support is urgently needed so that the sector can continue to contribute to economic and social development while addressing challenges in a manner that is consistent with the Sustainable Development Goals.

The present study report reviews the status of and the challenges facing the road sector under the sustainable development agenda, identifies the gap in the existing global institutional setting and the need for supporting sustainable development in the road sector, evaluates possible options to fill the gap and meet the need, and explores the viability of establishing an intergovernmental international organization for roads.

The challenges facing the road sector can be grouped into six areas namely: energy consumption and emissions; road safety; internationalization; intelligent transport systems; dangerous goods; and security.

The transport sector consumed 28 per cent of total global energy in 2014 making it the second largest consumer of energy. Within the sector, road transport consumed about 77 per

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<sup>1</sup> 25 member States of the European Union.

cent of its total. If current trends continue, the road sector is expected to increase its energy consumption by 29 per cent from 2015 to 2030 and 63.8 per cent by 2050.

Reflecting the energy consumption figures, the transport sector, released 23 per cent of global CO<sub>2</sub> emissions making it the second largest emitter. Within the sector 75 per cent of emissions were from road transport. If current trends continue, road transport's CO<sub>2</sub> emissions are expected to increase by 28.88 per cent from 2015 to 2030 and 63.18 per cent from 2015-2050.

In 2013, 1.25 million people died from road traffic injuries and another 20-50 million more people suffered from non-fatal road traffic injuries. Sustainable Development Goal 11 includes the improvement of road safety by 2030 and Goal 3 is to halve global deaths and injuries from road traffic crashes by year 2020. However, recent research by the International Transport Forum (ITF) shows that the global trend in road fatalities will miss the targets in both the United Nations Decade of Action for Road Safety and the Sustainable Development Goals.

The internationalization of road transport has, in most regions, brought with it many challenges which both control authorities and road transport operators are struggling to manage. Some of these challenges include: lack of widely recognized intergovernmental standards on competencies of international road transport operators; international movement by road being permitted but largely confined to border areas and a limited number of roads using transport permits issued for a designated route by a specified individual vehicle; differences between countries in the sets of rules and regulations related to road transport; visa application processes that are rarely simple and straightforward and often require a considerable amount of paperwork and time; differences in the vehicle weight and dimension and other safety requirements related with the vehicle structure or construction, when moving across borders; lack of adequate insurance products covering cross border and transit transport of vehicles; differences in requirements, categories and issuance institutions governing driver licenses; different formats for road signs, signals, signage and markings (posing problem for both tourists and drivers of commercial vehicles); lack of harmonization of registration books, road worthiness certificates, periodical inspection certificates and registration plates of vehicles; barriers to intermodal cross-border movements requiring

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