

EXECUTIVE SUMMARY AND RECOMMENDATIONS

ROAD SAFETY IN ASIA PACIFIC

Road transportation safety is becoming a critical issue in the Asia Pacific Region since road accidents directly cause loss of life, personal suffering and property damages. Indirectly, it impacts the efficiency and performance of the transportation network, and affects the quality of life of all residents of the Asia Pacific Region. With the rapid economic growth experienced by the Region in the past decades, some of the Member Economies are experiencing high rates of growth in motorized transports. As a result, road safety casualties are growing compared to other regions of the world.

The economic impact of road collisions in the Asia Pacific Region could adversely impact the social and economic well-being and development of the Region. APEC recognized the importance of road safety in the region, and appointed the Road Safety Expert Group to focus specifically on road transport safety issues.

APEC'S INITIATIVES TO IMPROVING ROAD SAFETY

One of the major objectives of the Asia Pacific Economic Cooperation (APEC) is to facilitate trade among member economies. Road transportation is an essential element in moving people and goods as part of a region-wide, inter-modal transportation system. To adequately fulfill their economic and social roles, *road transportation systems must be safe, efficient and reliable*. The APEC economies have realized that improving road transportation safety is not only essential in promoting the quality of

life but it is also of utmost importance to the trade industry in the Asia-Pacific region.

The importance of road transportation safety was first brought up at the 11th APEC Transportation Working Group (TPT-WG) meeting in Seattle, United States. Subsequently, at the 12th TPT-WG Meeting, Chinese Taipei proposed to establish the Road Safety Experts Group (RSEG) to facilitate the exchange of road safety information and to develop a systematic approach to the road transportation safety initiatives in the APEC region. Under the leadership of Chinese Taipei, RSEG has consequently conducted two initial projects.

The first project focussed on collecting information regarding existing safety practice and strategies and collision data collected by each APEC Member Economy.

The second project identified twelve major road safety issues in the APEC Region. Subsequently, a comprehensive survey was conducted to identify and compile a range of counter-measures from the APEC Member Economies that deal with these problems.

The "12" Major Road Safety Issues in APEC Economies were as follows:

- Best way to collect and share data
- Road infrastructure improvements
- Roadside slope management
- Speeding
- Impaired driving
- Vehicle overloading
- Seatbelts/helmets usage
- Pedestrian safety
- Safety of older people
- Community approach
- Black-spots
- Raise society awareness

While recognizing that individual Economies' road safety problems and the approach to resolve those problems may not coincide, RSEG suggested that the common characteristics and solutions can be analyzed and developed as recommended initiatives to be implemented by all APEC Member Economies. To that end, RSEG designed a three-phased approach to meet its overall goal of developing better road safety packages for all APEC economies as follows:

Phase I - develop a *compendium of best road safety initiatives* for APEC Member Economies to improve road transportation safety in the Region.

Phase II - develop *individual action plans for voluntary Member Economies* based on the initiatives developed in Phase I.

Phase III - conduct a *pilot program* involving both public and private sectors to implement low-cost highly effective measures for improving road safety in voluntary Member Economies.

This report concerns Phase I. The purpose of this report is to:

1. Provide a “best practice” compendium of low-cost, highly-effective road safety initiatives; and,
2. Identify organization roles, partnership models and funding sources, including the opportunities for cooperation with the private sector and non-government organizations to improve the performance of road safety programs in APEC economies.

A SYSTEMATIC APPROACH TO ROAD SAFETY

While one of the specific objectives of this project was to ‘...*suggest initiatives to*

improve road transportation safety in the APEC Region according to the common directions and possible resources..., the diversity amongst the 21 APEC Member Economies would indicate that ‘commonality’ must be interpreted in this context to have a broader meaning than a simple “one-size-fits-all” approach.

A safety management approach is proposed based on the safety management model adapted from the Organisation for Economic Co-operation and Development’s (OECD) road safety planning approach. This process is illustrated below.

Road Safety Management Process



Establishing a Safety Vision

The first step in the process is to identify a road safety vision. The purpose of establishing a vision is to ensure that road safety has a prominent place in transport policy. A good vision should motivate road

users, politicians and those responsible for road safety to work towards achieving the vision.

Situation Analysis

The next step is to perform an analysis to determine which of the identified major problems may exist in an economy. This is an important step because it directly impacts the initiatives that are adopted and can help prioritize the initiatives.

Goal Setting

Goal (target) setting is a valuable tool to increase the effectiveness of road safety program development and leads to improved road safety. Goals will generally be more specific than the vision statement noted above. They can be determined using a “top down” process based on idealistic objectives, or a “bottom up” approach using realistic objectives. In practice, a blend of these two approaches is often used.

Building the Road Safety Program – A “Portfolio” Approach

A “portfolio approach” is proposed as a means of identifying the most appropriate road safety initiatives to address the problems identified in the Situation Analysis stage.

The optimal strategy is to employ a range of proven measures - a portfolio - aimed at road users, vehicles and road infrastructure. The objective is to decrease risks of collisions (i.e., collision frequency and severity).

The key to advancing road traffic safety with respect to APEC economies is that the initiatives adopted:

- Are effective within a relatively short time;

- Can be supported by “internal” resources and/or cooperative arrangements and able to attract non-governmental funding support;
- Are highly visible to the public;
- Can be replicated and sustained;
- Can be monitored and evaluated.

Selecting the optimal mix of measures to include in any economy’s road safety portfolio critically depends on the overall approach. In this regard, there are two broad alternatives - a comprehensive approach; and a selective approach.

A comprehensive approach is generally recommended since it will yield superior results. Such approach requires linkages between the planning process, use of technology, traffic education, enforcement and data collection and information sharing and may thus be better suited in more advanced economies.

In cases where resource limitations restrict the ability to implement and monitor a comprehensive program, a selective approach may be prudent in the short term. Such a program may focus on one of the Major Safety Issues and select one or more prominent initiative. This could then be a stepping stone to generate “early winners” and build awareness and support for a more comprehensive program in the long term.

Monitoring and Evaluation

Finally, the road safety program must be monitored and evaluated, based on the targets set earlier in the process. The results of the monitoring and evaluation are important tools that assist an economy to:

- Ensure that the program achieves the staged goals and objectives;
- Determine any modifications necessary to achieve the desired results;
- Provide public and political feedback;

- Continue to generate awareness and interest in road safety; and,
- Provide impetus for expanding the road safety program in the economy.

FUNDING AND MANAGING ROAD SAFETY

One component of the study is the formulation of recommended practices for funding and managing road safety, presented in *Sections 4 and 5*.

The various funding opportunities for road safety programs are identified in *Section 4*. Each potential funding source is briefly discussed and preliminary pros and cons are provided. It is expected that one or more of the funding sources could be adopted in Phases II and III of the project for volunteer Member Economies.

The management of road safety, including the roles of the public, private and non-governmental organizations (NGO's), and the partnership opportunities are also discussed in detail. Their key roles and responsibilities are identified for this project such that they could be used as a checklist for phases II and III of the project where they will be examined in details for the volunteer economies when developing the road safety plans. The roles and responsibilities of the public sector, private sector and NGOs checklists are summarized in *Section 5* of the report.

COMPENDIUM OF ROAD SAFETY INITIATIVES

The complete Compendium of Road Safety Initiative is presented in *Section 6* of this report as a stand-alone component for ease of further reference.

The compendium addresses the consolidated major safety issues. For each issue, the compendium provides:

- a **description**, mainly based on the APEC documentation supplemented by the study team's input;
- the **range of road safety initiatives** categorized into Engineering, Enforcement (including judiciary initiatives), Education (including training) and Policy;
- examples of **"good practices"** from the APEC member economies and other sources, when available; and,
- documented **"empirical evidence"** in support of recommended initiatives as reported in various sources.

RECOMMENDATIONS

It is thus suggested that APEC, as a leading organization, lever its credibility, resources and "internal" expertise to influence and advocate the implementation of road safety initiatives for the Member Economies.

The results of this study, namely the Compendium of Road Safety Initiatives and the principles for Managing and Funding Road Safety, can form the foundation of a systematic approach for implementing road safety initiatives that can be recommended to Member Economies wishing to enhance their road safety programs.

The proposed approach can be readily tailored to meet the specific needs of a particular economy in Phases II and III.

Lastly, it is recommended that APEC consider holding a workshop at the Annual Transportation Working Group meeting to disseminate the information contained in this report, and to solicit volunteer member economies to proceed to Phase II of the project.