

## **TS2 SUSTAINABLE ROADS - PART OF THE TRANSPORT CHAIN IN A GLOBALIZED WORLD**

Although many countries have already included the goal of sustainability into their planning, construction and operation of roads today, there are many requirements still to be tackled on the route to environmentally respectful and socially just development.

In particular, the idea of a comprehensive intermodal approach for strategic transport planning should be followed up with and introduced, especially in regard to developing countries.

Road transport is definitely one of the major transport modes but it can be said today that sustainable development does not only start with the question of how to make road transport sustainable. This means that the different transport modes should not be dealt with separately in the strategic planning process. The identification of transport needs and the definition of transport corridors to fulfil these needs are a first step in sustainable transport planning. Within those identified corridors, different transport modes can carry the load of traffic. The distribution of the demand on the different modes in a corridor is one of the challenges of sustainable planning. Furthermore, the experience of combining different modes of transport in a corridor has shown some beneficial effects in terms of mitigating the negative impacts of traffic as a whole, such as noise pollution.

### *Transport chains and corridors in a world of globalisation*

The establishment of economic treaties and trade agreements all over the world has had major impacts on the foreign goods trade – already today and even more so in the future. These developments give clear evidence of the increasing importance of the interregional and international transport networks to economic development. There is an eminent need for all countries to work together.

It had been shown that the planning of priority transportation corridors is an approach to deal with the development of increasing trade relations within and between major economic regions.

Nevertheless, there is a need to highlight some open issues necessary to be addressed in the future in greater depth. These are:

- ☑ Balancing development between high priority networks and hinterland regions;
- ☑ Upgrading local distribution networks;
- ☑ Strengthening of nodes within a strategic transportation network;
- ☑ Tackling upcoming demand in developing countries;
- ☑ Making networks reliable in operation; and,
- ☑ Financing these measures

It can be noted that countries that are just about to enter the global market attach greater importance to a fast upgrading of their road networks in order to cope with traffic demand while industrial countries make a greater effort with tackling congestion on the existing networks within the limits of social and environmental requirements.

### *Consequences of the demographic process on road infrastructure*

All regions of the world are facing major demographic changes although there will be differences in development. There will be high birth-rates in developing countries that go along with high rates of migration. On the other hand, populations in industrial regions are likely to decrease and there would be increases in life expectancy rates – if there weren't migration. But it must be noted that an accurate prognosis of the demographic changes can only be done in short and medium term. Long term trends (50 years and more into the future) can only be estimates based on assumed scenarios. A sustainable transportation planning must consider these developments for example:

- ☑ monitor and analyse specific mobility indicators;
- ☑ include elderly-friendly aspects into the planning process; and,
- ☑ analyse the safety impact of an ageing population

### *Impact of roads on quality of life*

The mitigation of the impacts of roads on the quality of life will create a challenge also for the next several years. Measures taken to help cope with the world's energy demand and its consequences will need to be focussed on in future.

Many countries have already set a target on the reduction of CO<sub>2</sub> emissions by implementing comprehensive transportation strategies. Technical, organisational and monetary measures are discussed as contributions of the transport and road sector to that goal. The new structure of the technical committees at PIARC for the next 4 year's working period has already addressed the issue of climate protection and bears good prospects to deal with all of these questions.