

PIARC (World Road Association) Strategic Plan - 2024-2027

TECHNICAL COMMITTEE 1.2 – CONTRIBUTION OF ROADS TO ECONOMIC AND SOCIAL DEVELOPMENT

Overview

For the Cycle 2024–2027, the Technical Committee 1.2 Contribution of Roads to Economic and Social Development will analyse three issues:

1. Summarizing the role of road investment in recent national-level infrastructure investment plans - contribution and impact of road to the national-level plans for de-carbonization
2. Understanding the changes in traffic demand caused by the digital economy, the post-pandemic economy and social context, defining the tools to describe and estimate them - special attention to the impact of the change of economy in LMIC countries
3. Broader economic and social impacts of road infrastructure, considering the effects of road construction and operation on social groups (equity), on economic systems, on gender inclusion.

The cross-cutting objective of TC 1.2 is to provide an up-to-date and comprehensive overview of trends, tools, best practices in investment planning and analysis of economic and social impacts of road infrastructure with a focus on decarbonisation, gender inclusion and social equity, impact of the change of economy in LMIC countries, importance of roads in achieving equitable and sustainable development.

1.2.1 Summarizing the role of road investment in recent national-level infrastructure investment plans - contribution and impact of road to the national-level plans for de-carbonization

Purpose: The main objective is to analyse the trend of road investments in recent years, analysing what has led to certain investment choices compared to other modes of transport. The aim of the work is also to analyse how the strategic objective of decarbonisation is reflected in the investment plans of road administrations evaluating the impact at national level.

Preliminary research questions:

- What is the current state of road investments in the world and what are the main challenges?
- How has the trend of investment changed in recent years compared to other modes of transport?
- Which are the reasons behind certain trends in investment in the transportation sector?
- Which are the corrective actions to be taken?
- How do road investments promote environmental sustainability and reduce greenhouse gas emissions?
- How to highlight the role of the road in the context of inclusiveness and social equity?
- How much the decarbonisation and therefore a reduced environmental impact of the roads can contribute to reevaluate the road to put like priority in the investment plans.

Importance to roads agencies: Summarising the road investments of recent years at national level gives road agencies a clear view of the current situation, past performance and future challenges. We must have a revaluation of the road as a fundamental infrastructure for accessibility, for intermodality and co-modality.

The importance of the road must also be highlighted through the concept of capillarity, which facilitates transport and with the contribution of road sector to de-carbonization.

Audience: A summary of road investment in recent years at the national level can be useful to a wide range of actors, including government agencies, planners, businesses, local communities, transport organisations and the general public. It provides clear information on the state of road infrastructure and the progress made in investment, facilitating future planning, informed decision-making and understanding of the role of road infrastructure in society.

Deliverables: Technical report, round table discussions, seminar, workshop or conference, promotion at PIARC partner events.

Background to TC's work on this topic: The importance of the role of the road and the investments in the sector are topics previously addressed in other studies on PIARC products, such as "The contribution of road transport to the sustainability and economic development" of 2020 and "Carbon neutrality of the road sector" of 2022.

Low and lower-middle income countries: Road investments can contribute to economic development, accessibility and mobility of people and goods within LMIC countries. A summary of road investments can provide a useful overview to assess the effectiveness of policies and guide future efforts to improve road infrastructure in the LCIM countries.

Gender inclusion & diversity: A summary of road investments can help highlight the challenges and opportunities to improve gender equity in road infrastructure by ensuring fair access to services, increased safety.

Potential duration: 4 years.

1.2.2 Understanding the changes in traffic demand caused by the digital economy, the post-pandemic economy and social context, defining the tools to describe and estimate them - special attention to the impact of the change of economy in LMIC countries

Purpose: Changes in traffic demand caused by the digital economy, the post-pandemic economy and the economic and social context can be understood and estimated through different tools and methods. The accuracy of traffic demand estimates will depend on the quality of the available data and the complexity of the factors involved. Understanding changes in traffic demand and its economic implications requires a multidisciplinary approach combining quantitative and qualitative analysis, using a combination of appropriate tools and methods.

Preliminary research questions:

- Which are the impacts of the digital economy on road transport?
- What were the main impacts of the digital economy on the changes in demand for network traffic?
- How has user behaviour in using digital services changed during the pandemic and how has this affected traffic demand?
- What are the main challenges and opportunities emerging from the changing of the traffic demand caused by the digital economy and the post-pandemic situation?
- What is the impact of the adoption of digital technologies on traffic demand in LMIC countries?
- What are the opportunities for international collaboration to support LMIC countries in addressing changes in traffic demand caused related with digital economy?
- Which are positive and negative effects of the digital economy on the global economy and traffic demand?

Importance to roads agencies: The study of changes in traffic demand is crucial to enable road agencies to adapt to changing social and economic dynamics, improve traffic management, increase road safety and promote sustainability in infrastructure and transport management.

Audience: This work involves several actors and stakeholders who may be interested in the studies and results on the analysis of changes in traffic demand caused by the digital economy, the post-pandemic economy and the economic and social context, as well as transport agencies and road agencies, also urban authorities and urban planners, public transport operators, consulting and data analysis companies and political decision-makers.

Deliverables: Technical report, round table discussions, seminar, workshop or conference, promotion at PIARC partner events.

Background to TC's work on this topic: This topic has been addressed earlier in "Carbon Neutrality of the Road Sector" of 2022, particularly the theme of changes following the coronavirus pandemic. While references to the impact of the change of economy in LMIC countries are present in the PIARC work "The Contribution of Road Transport to Sustainability and Economic Development" of 2020.

Low and lower-middle income countries: LMIC countries face challenges and opportunities arising from changes in traffic demand related to the digital economy. The adoption of targeted policies and strategies can help maximize benefits and address challenges, fostering the equitable, sustainable and inclusive development of digital infrastructure and transport services in low- and middle-income countries.

Gender inclusion & diversity: The digital economy offers new opportunities for access to services and economic opportunities. Promoting equal access and inclusion in these opportunities is key to combating gender inequalities. Policies must also meet different needs and consider diversity not only by gender but also by age and social context.

Potential duration: 4 years.

1.2.3 Broader economic and social impacts of road infrastructure, considering the effects of road construction and operation on social groups (equity), on economic systems, on gender inclusion

Purpose: Understanding the economic impacts of road infrastructure is crucial for progress and growth. However, the impacts of road infrastructures go beyond the economic aspect since they can substantially influence different areas of society promoting social equity by ensuring access to essential services for disadvantaged communities.

The results of the study can guide the decisions of road agencies, policy makers and local governments. In addition, the study can provide a basis for public participation in identifying investments and the promotion of policies that promote accessibility, security and social inclusion in communities served by infrastructure.

Preliminary research questions:

- What are the economic effects of road infrastructure on national development and economic growth?
- How can road infrastructure promote social equity and access to services for disadvantaged communities?
- What is the impact of road infrastructure on local employment and economic opportunities?
- How can road infrastructure improve people's accessibility and mobility, especially for disadvantaged groups?

- What is the impact of road infrastructure on the environment, including noise, air and land use?
- How can road infrastructure be designed and managed in an environmentally sustainable way?
- What is the importance of public participation and consultation of local communities in the planning and design of road infrastructure?
- What are examples of good practice in integrating economic, social and environmental impacts into road infrastructure decisions?

Importance to roads agencies: This work aims to give road agencies a clear overview of the economic and social impacts of road infrastructure. This work should help road agencies to identify ways to better understand the needs and concerns of local communities. This is particularly important to ensure significant involvement and public participation in decision-making. When road agencies understand the social impacts of road infrastructure, they can collaborate with communities to minimize negative impacts and maximize benefits.

Finally, the study can provide road agencies with a basis for long-term planning and resource allocation. Understanding the economic and social impacts of road infrastructure allows agencies to assess the effectiveness of their activities and to achieve the maximum possible impact with available resources.

Audience: Key users who could benefit from this study include not only road agencies but also government agencies responsible for the planning and management of road infrastructure. These agencies can use the results of the study to make informed decisions about planning and resource allocation for road infrastructure. They may consider economic and social impacts in order to develop strategies and policies that promote sustainable development and fair distribution of infrastructure.

Companies and the private sector could be interested in this study to assess the economic impacts of road infrastructure on their activities and to identify investment opportunities.

Finally, local communities and residents interested in the impacts of road infrastructure on their daily lives could benefit from this study.

Deliverables: Technical report, round table discussions, seminar, workshop or conference, promotion at PIARC partner events.

Background to TC's work on this topic: This topic has been addressed earlier in a call for proposal: "Social equity and social accessibility of transport systems" of 2022 whose final report should be published for Prague Congress in October 2023.

Low and lower-middle income countries: Targeted planning of the infrastructure network supported by this type of study could have a significant impact on economic development, accessibility, social inclusion and environmental sustainability in the LMIC countries. It is important to carefully consider the effects of different infrastructure scenarios and to adopt approaches that promote fair, sustainable and inclusive development.

Gender inclusion & diversity: Link between road infrastructure and gender inclusion concerns fair and secure access, economic participation, addressing gender challenges and family roles, and the participation of women in infrastructure decisions. It is essential to include gender inclusion and equity in analyses of the economic and social impacts of road infrastructure.

Potential duration: 4 years.