

21st Transport Sector Coordinating Committee Meeting

22-23 April 2024 • Almaty, Kazakhstan

21-е заседание Координационного комитета по транспортному сектору

22-23 апреля 2024 года • Алматы, Казахстан

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ADB and Road Asset Management

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CAREC TRANSPORT STRATEGY 2030



CAREC TRANSPORT STRATEGY 2030

JANUARY 2020



- Over the last decade CAREC countries invested considerably in improving their highways.
- Management of these new and old road assets remains a challenge.
- CAREC Transport Strategy 2030 pays high attention to establishing effective and efficient practices of road asset management (RAM) across the CAREC region.
- The key premise of RAM is: Preventive knowledge-based maintenance extends the road asset life without capital repair.
- Reducing the overall long-term capital and operational expenditures for the national road network.
- Maintaining the good quality of the network, speed of travel and traffic safety.

Compendium of Best Practices in Road Asset Management

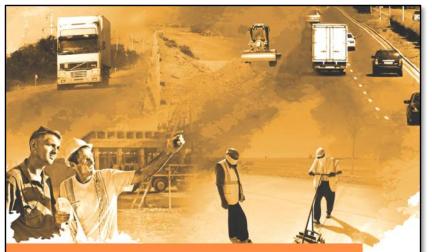


COMPENDIUM OF BEST PRACTICES IN ROAD ASSET MANAGEMENT

- Provides a general introduction to the concept of road asset management.
- Elaborates on the objective of road asset management to optimize economic benefits by minimizing maintenance costs and road user costs.
- Presents the best practices for the introduction and development of road asset management.
- Reflects common problems the different CAREC member countries face.
- Presents the most successful solutions in the development of road asset management.



Guide to Performance-Based Road Maintenance Contracts



GUIDE TO PERFORMANCE-BASED ROAD MAINTENANCE CONTRACTS

APRIL 2018

- The objective of this guide is to assist CAREC member countries to better understand the concept of Performance-Based Road Maintenance Contracts (PBC).
- Serve as guidance on the implementation of PBRMC.
- Describes different delivery modes of road maintenance, and gives a brief history of PBCs, Discusses advantages and disadvantages of the contract modality.
- Defines various types of PBCs and their variable elements e.g., scope, duration, extension, performance levels, payment and incentive systems, performance monitoring, and risks and risk mitigation)



Status Assessment of RAM and PBC



ROAD ASSET MANAGEMENT SYSTEM AND PERFORMANCE-BASED ROAD MAINTENANCE CONTRACTS IN THE CAREC REGION

OCTOBER 2021

This publication was prepared in 2021 and aims to improve the management and maintenance of CAREC road corridors through the sharing of best practices that exist within CAREC countries regarding RAMS and PBCs.

- For each CAREC member country, this document provides an overview of the road network,
- the institutional responsibilities for its management,
- the involvement of government units and private sector contractors,
- the levels and sources of funding for the road sector and especially for road maintenance and repairs,
- lessons learned and a way forward for future activities.



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Road Funds and Road User Charges



ROAD FUNDS AND ROAD USER CHARGES IN THE CAREC REGION

DECEMBER 2022



Published in December 2022 this publication aims to improve the financing, management, and maintenance of CAREC road corridors through the sharing of best practices that exist within CAREC countries regarding road funds and the earmarking of road user charges.

- For five CAREC member countries: Azerbaijan, the Kyrgyz Republic, Mongolia, Pakistan, and Uzbekistan an assessment of their road funds was undertaken.
- presents the road funds in these five countries in detail, including their history and current operation.
- examines in more detail the institutional aspects and operational procedures of the road funds in the CAREC region, and the road user charge revenues that finance them,
- drawing lessons for the introduction and continued development of road funds in the region and beyond.

Performance Based Road Maintenance contracts



PERFORMANCE-BASED ROAD MAINTENANCE CONTRACTS IN THE CAREC REGION

DECEMBER 2023



This latest publication published in December 2023 shares best practices that exist within CAREC countries regarding Performance-Based Road Maintenance (PBRM).

The document examines a series of past and ongoing PBRM contracts in the CAREC region in regard to:

- Contract scope
- Performance standards
- Inspections
- Response times
- Payments and deductions
- Procurement and contract costs

The publication identifies lessons learned for the improvement of PBRM contracts.

Mapping the Future of Road User Charges in Asia and the Pacific -*Road Maintenance Financing and Cost Recovery Options*(Forthcoming in 2024)



THE FUTURE OF ROAD USER CHARGING IN DEVELOPING ASIA AND THE PACIFIC

Road Maintenance Financing and Cost Recovery Options

March 2024

Version 5

ADB

A substantial share of road sector revenue is usually derived from taxes or levies linked to fossil fuel. However, dependence on fossil fuel-based taxation is set to become progressively untenable. ADB has initiated a study across ten DMCs including PAK, KGZ, UZB, and MON to explore alternative road user charging systems that could resolve current funding shortfalls and remain viable in a decarbonized future. This publication will examine:

- Assess the maintenance needs for each country's road network.
- Evaluate the total revenues that could be recuperated through the current road user charge systems.
- Identify the extent of the funding gap within the road subsector.
- Propose actionable solutions to bridge the funding gap.

Mapping the Future of Road User Charges in Asia and the Pacific -**Technology Options for Road Charges under Decarbonization** (Forthcoming in 2024)

THE FUTURE OF ROAD USER CHARGING IN DEVELOPING ASIA AND THE PACIFIC **Technology Options for Road User Charges under Decarbonization** April 2024 ADB TA-6756 REG: Improving infrastructure sustainability through better asset management - Mapping the future of road user charging in developing Asia and the Pacific Publication 2: Emerging Technological Options for Road User Charges under Decarbonization ADB Asian Development Bank

This will be second publication under the *Mapping the Future of Road User Charges Study.*

The publication will serve as a toolkit that can be applied by practitioners to guide decisions on current and emerging technologies that can be implemented to support cost recovery, complement efforts to decarbonize transport, and address other transport externalities. The publication will discuss:

- Technology options for implementing existing and emerging road user charges such as 'pay as you drive'.
- Establish a decision framework for guiding the selection of road user charges technologies by considering country context and other criteria.
- Case studies to demonstrate the application of the framework.

Dig Once Toolkit for Road Transport Decarbonization (Forth Coming in 2024)



Dig Once Approach for Road Transport Decarbonization

ADB

ABBEL

Dig once refers to polices and approaches that ensure the coordination of infrastructure projects to minimize the number of excavations. This forthcoming publication serves as a toolkit for enabling the implementation of Dig Once policies to support the installation of infrastructure for enabling clean transport.

This toolkit presents an overview of the aspects to be considered, offering an overview of Dig Once development, lessons from previous applications and potential business model and implementation approaches.

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ADB Green Roads Toolkit



ADB's Green Roads Toolkit is a compendium of green roads practices for designing road projects that align with the Paris Agreement and SDGs.

It encompasses strategies and exemplary practices in nine essential areas: decarbonization, climate resilience, water and land management, pollution control, enhancing quality of life, biodiversity conservation, disaster preparedness, sustainable material sourcing, and fostering inclusive economic growth.

The toolkit is set to launch at the ADB Transport Forum in May 2024 and will be accessible from ADB website.

ASIA AND THE PACIFIC TRANSPORT FORUM 2024 CLEAN TRANSPORT FOR ALL 14-17 May 2024 | ADB Headquarters, Manila, Philippines

ROADS TRAINING SESSIONS DURING ADB FOURM :

- Road User Charging Systems for a Green Future 16 May
- Green Roads Toolkit 16 May
- Safe and Sustainable Urban Streets 16 May
- E-mobility Roadmap 17 May
- HDM-5 software development 17 May



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