



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



Overview of CAREC Activities in the Road Sector

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Road Sector Studies

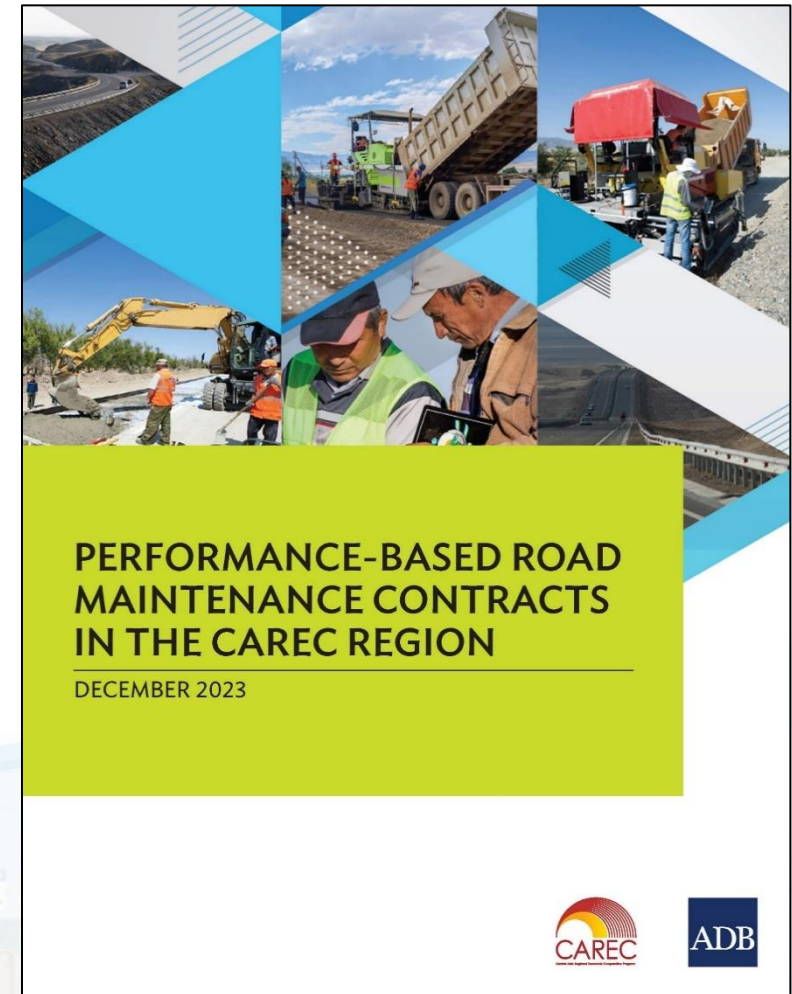
- Completed studies
 - Performance-Based Road Maintenance in the CAREC Region
- Ongoing studies
 - Road Asset Management Systems (RAMS) Action Plans
 - Key Performance Indicators (KPIs) for the Road Sector
- Planned studies
 - State-owned Enterprises in Road Maintenance

Performance-Based Road Maintenance in the CAREC Region



Study carried out by ADB

- Performance-based road maintenance contracts in the CAREC region
- 6 countries
 - Azerbaijan
 - People's Republic of China
 - Georgia
 - Kyrgyz Republic
 - Mongolia
 - Tajikistan
- 13 projects
- 24 contracts
- 2,900 km



RAMS Action Plans



Tajikistan

Objectives	The activities	Period
Establishment of sustainable RAMS in Tajikistan	1. Establishment of a Task Force consisted of minimum 3 existing staff (road engineer, economist and IT specialist) in the MoT designated for establishment of RAMS	2021
	2. Complete a needs assessment, development of Charter and establishment of RAMS Unit in the MoT to ensure sustainable operation in a long term	2021
	3. Identification, negotiation and agreement with development partners on provision of support for introduction of RAMS and selection process of consultants	2021
	4. Identify the needs and procure the road survey equipment, vehicle, a licensed pavement management software and other related equipment for introduction of RAMS	2021
	5. Development of training program and provision of continued theoretical and practical training to the designated MOT staff on RAMS management and application	2021-2023
Collection of accurate data on road condition	6. Complete a survey and collect the data on the road inventory, condition and traffic: - for 2000 km of international roads in year 1; - for the entire international roads and part of republican roads (5,500 km) in year 2; - for the entire international roads and republican roads as well as part of the local roads (14,000km) in year 3.	2021-2023
	7. Conduct an independent survey for an updated data collection on road inventory and condition for all international, 50% of republican and 35% of the local roads (7,500 km)	2024
Establishment of new database and management system	8. Complete an assessment of existing database and provide limitation and gap analysis and propose recommendations for improvement	2021
	9. Assessment and improvement of existed algorithms and software for road asset management	2021
	10. Development and testing of improved database (or new database) for road network assessment, entry and processing of data collected during the survey	2021
	11. Finalization of improved road database and validation, processing and entry of data from the survey	2022-2023
Ensure clear data analysis and planning of works for road maintenance	12. Testing, processing and entry of the data collected from the road network survey to the new database	2024
	13. Preparation of rolling 3-year program and annual work plan for international and republican roads, as well as for selected portion of the local roads	2022-2023
	14. Completion of training activities for MOT and other related ministries staff for development of rolling 3-year program and annual work plan for road maintenance	2022-2023
Improvement of the road maintenance financing mechanism	15. Preparation of rolling 3-year and annual work program for international and republican roads, as well as for selected portion of the local roads	2024
	16. Complete an assessment of sources of road sector funding in Tajikistan and provide a report with findings and recommendations	2021
	17. Complete an estimation of required funding levels for road maintenance with application of RAMS and discuss the options to ensure sufficient funding is allocated for road maintenance works, including different options for creating a Road Maintenance Fund	2022-2023
	18. Establish a dedicated Road Maintenance Fund using a modality that is appropriate to Tajikistan	2024
	19. Conduct an assessment for options to introducing tolling projects in selected roads, identify and present priority projects for approval to the GoT	2023
	20. Priority tolling projects are approved and viable projects are prepared and are awaiting financing	2024

RAMS Action Plans

- Reviewing current road asset management procedures
 - Identifying concrete actions to be undertaken in support of the development of a RAMS
 - Agreeing these actions with Government
- Issuing a decree or similar to support the implementation of the RAMS Action Plan
 - Example Tajikistan: Presidential Decree
- Possible ADB support to developing RAMS Action Plans in 1 or 2 countries in 2024/2025
 - Which countries are interested?

Key Performance Indicators for the Road Sector



Key Performance Indicators

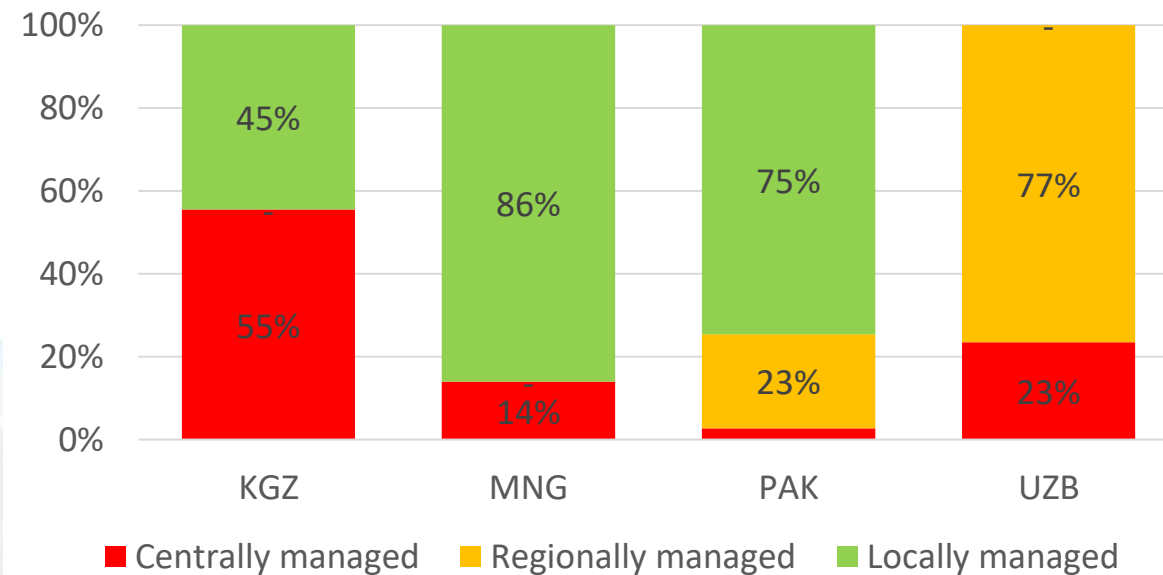
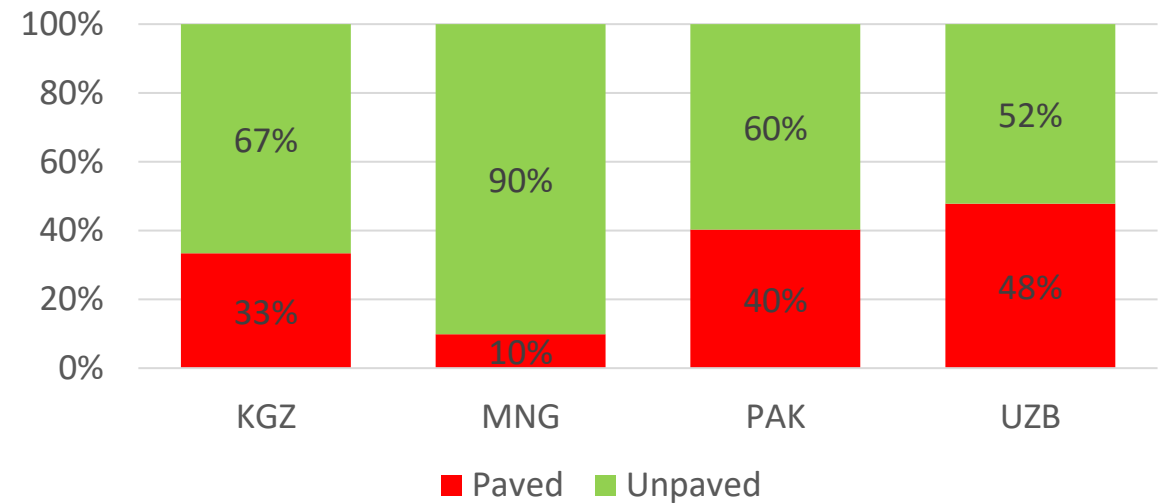
- CAREC Transport Strategy 2030
 - Outcome KPI-1: Maturity of Road Asset Management Systems (RAMS)
 - Outcome KPI-2: Average Speed of Traffic Without Delay
 - Outcome KPI-3: Perception of Highway Quality
- KPIs not very suitable to reflect road management in the different countries
 - KPI is difficult to collect (KPI-1)
 - KPI does not provide sufficient detail to explain performance (KPI-2)
 - KPI is not available on an annual basis (KPI-3)

Need for more comprehensive KPIs

- To properly describe road management in CAREC member countries
- This requires data from the CAREC member countries:
 - Road network lengths
 - By class
 - By surface type (paved/unpaved)
 - By condition (good-fair-poor)
 - Estimated maintenance/repair needs and budget allocations
 - For road maintenance and current repair
 - For regular repair (periodic maintenance)
 - For capital repair (rehabilitation)
 - Length of road resurfacing carried out

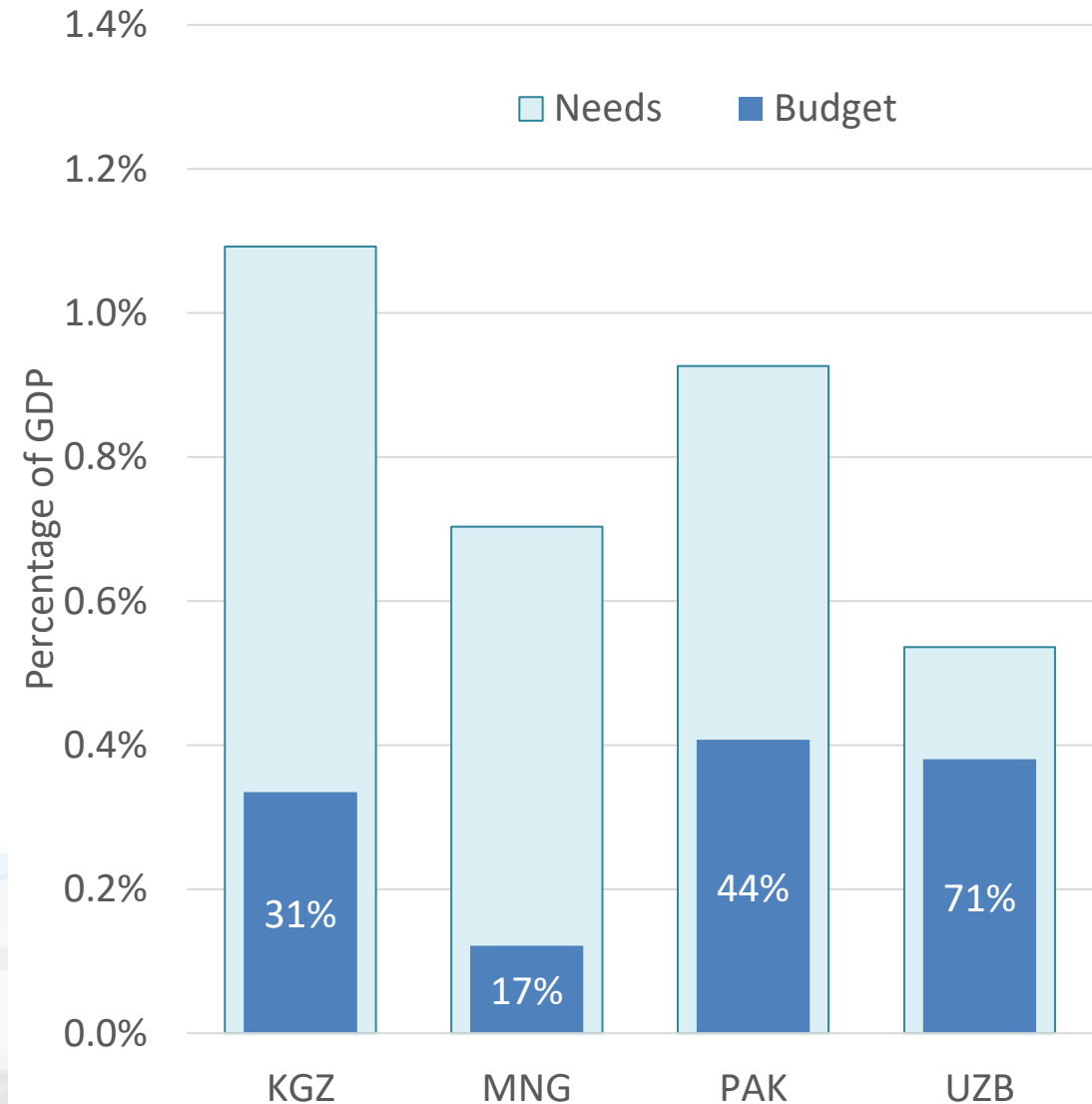
Road condition KPIs

- Percentage of network with paved surface
- Percentage of network in good/fair/poor condition
- Possibly presented by road class
 - Distinguishing centrally and locally managed roads



Road funding KPIs

- Road maintenance and repair needs as percentage of GDP
- Road maintenance and repair budget allocations as percentage of GDP
- Percentage of estimated needs that are covered by budget allocations



Key Performance Indicators

- KPIs allow comparison between CAREC member countries
 - Is there a difference in performance?
- This allows countries to learn from each other
 - How are maintenance and repair planned, financed and implemented?
- It can also form the basis for targeted support from development partners
 - Supporting institutional reform
 - Improving the integration of a RAMS into annual planning
 - Establishing or strengthening a Road Fund
 - Introducing improved contracting modalities

State-Owned Enterprises in Road Maintenance



In-house Implementation – Tajikistan

- 64 area-based State Institutes for Road Maintenance (GUSADs)
 - Responsible for current repair and maintenance
 - Average of 43 staff (total 2,741 staff)
 - Responsible for average of 85km of republican roads and 139km of local roads
- Function as implementation units under the Ministry of Transport
 - Managed directly through 6 Regional Road Administrations
 - Budget allocations for salaries, pensions and works
 - Large expenditure on salaries and labour (45%)

Commercialization – Uzbekistan

- Road maintenance enterprises
 - 5 specialized road maintenance enterprises
 - 39 corridor-based road maintenance enterprises
 - 161 area-based road maintenance enterprises
 - 13 bridge maintenance enterprises
- Fully financed through annual contracts with the Committee for Roads
 - Responsible for current repair and maintenance
 - Salary costs and pensions included under annual contract
- Road construction enterprises transferred to Agency for State Assets
 - To be corporatized and possibly privatized

Corporatization – Kyrgyz Republic

- Creation of a larger commercially viable entity
 - 57 DEU + 4 corridor-based UADs + 1 General Directorate (Bishkek-Osh)
 - Transformed into single entity Kyrgyzavtozhol with 6 oblast branches
 - Responsible for current repair and maintenance
 - Fully financed through an annual contract
- Area-based PLUADs converted into Regional Offices
 - Under the Road Management Department of the Ministry of Transport and Communications

Private Sector Participation – Mongolia

- 20 state-owned road repair and maintenance enterprises (AZZAs)
 - Responsible for routine repair and maintenance
 - 2-year contracts
- Complemented by 13 private companies
 - Responsible for routine repair and maintenance in other parts of the network
 - 1-year contracts
- Plans to corporatize the AZZAs
 - Allows them to also carry out regular repair
- Capital repair is contracted out to the private sector on a competitive basis

Full Privatization – Georgia

- All in-house units were privatized or sold off
- All road maintenance and repair is contracted out to the private sector on a competitive basis
 - Contracts for 2-year periods
 - 24 area-based road maintenance contracts + 4 contracts for bridge/tunnel maintenance
 - Assessing benefits of some corridor-based maintenance contracts
- All periodic maintenance and rehabilitation is contracted out on a competitive basis

Objectives of the study

- What is the situation in the 11 CAREC member countries?
 - What changes have they gone through or are planned?
- How are the different modalities performing?
 - What are the advantages and disadvantages of the different modalities?
- What lessons learned can be obtained and shared with other countries?
 - In terms of the current modality as well as the past and future transitions
- What should be the end goal?
 - Commercialization
 - Corporatization
 - Private Sector Participation
 - Full Privatization