CAREC
Central Asia Regional Economic Cooperation Program

First Road Working Group Meeting

11–12 March 2026 | Urumqi, People's Republic of China

Первое заседание Рабочей группы по автомобильным дорогам

11–12 марта 2026 года | Урумчи, Китайская Народная Республика




Road Asset Management System – the Tajikistan example

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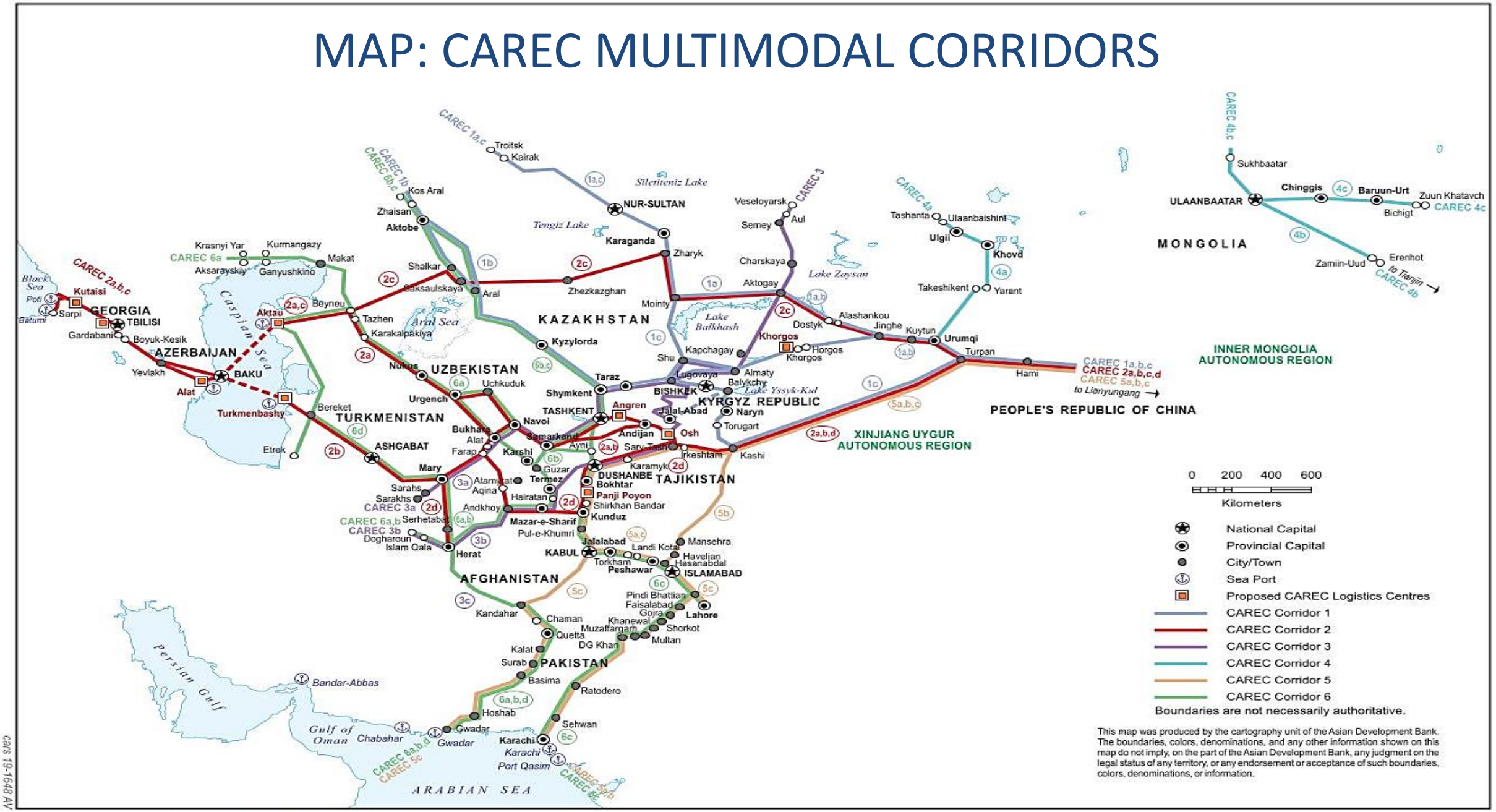
MAP: CAREC MULTIMODAL CORRIDORS



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Source: ADB. 2020. *CAREC Transport Strategy 2030.*

Outline

- Road Asset Management Systems - Why, When, How ?
- The Tajikistan Example
- Future directions

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Road Asset Management System (RAMS)

RAMS – Why?

- Road infrastructure investments represents one of the largest public investments
- Roads requires continuous maintenance to sustain mobility, safety, and economic productivity
- Inadequate maintenance of roads increases vehicle operating costs – affecting economic growth
- Priority of road network expansion over maintenance – rapid deterioration of roads and ad-hoc maintenance interventions
- Road maintenance is often budget availability – not need / priority – driven
- Hence reactive – not predictive maintenance

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RAMS – When?

RAMS ensures systematic, cost-effective road network management that maintains asset value and service quality

RAMS provides

- Systematic inventory and conditions monitoring
- Multi-year budgeting and prioritization
- Performance modelling and lifecycle costing
- Standardized performance indicators – International Roughness Index (IR)

IFI/MDB/Development Partners' Support

- Sustainability of transport investment
- Transparency in maintenance funding
- Efficiency of rehabilitation programs

RAMS is Objective, Evidence based, Predictive

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RAMS – How?

RAMS requires:

1. Inventory / Data: Road Geometry, pavement condition, bridges, traffic, road safety – digital survey and GIS technologies
2. Assessment / Modeling: Pavement deterioration modeling, Lifecycle cost analysis, Risk and resilience assessment
3. Programming / Optimization: Multi-year maintenance planning, prioritization of budget – HDM4 analysis
4. Financial Integration: link to budgetary planning, optimum contracting methods (e.g. Performance-based Contracting – PBCs)
5. Technology: web-GIS Platforms (Future AI-assisted)

RAMS is objective, evidence-driven, and predictive

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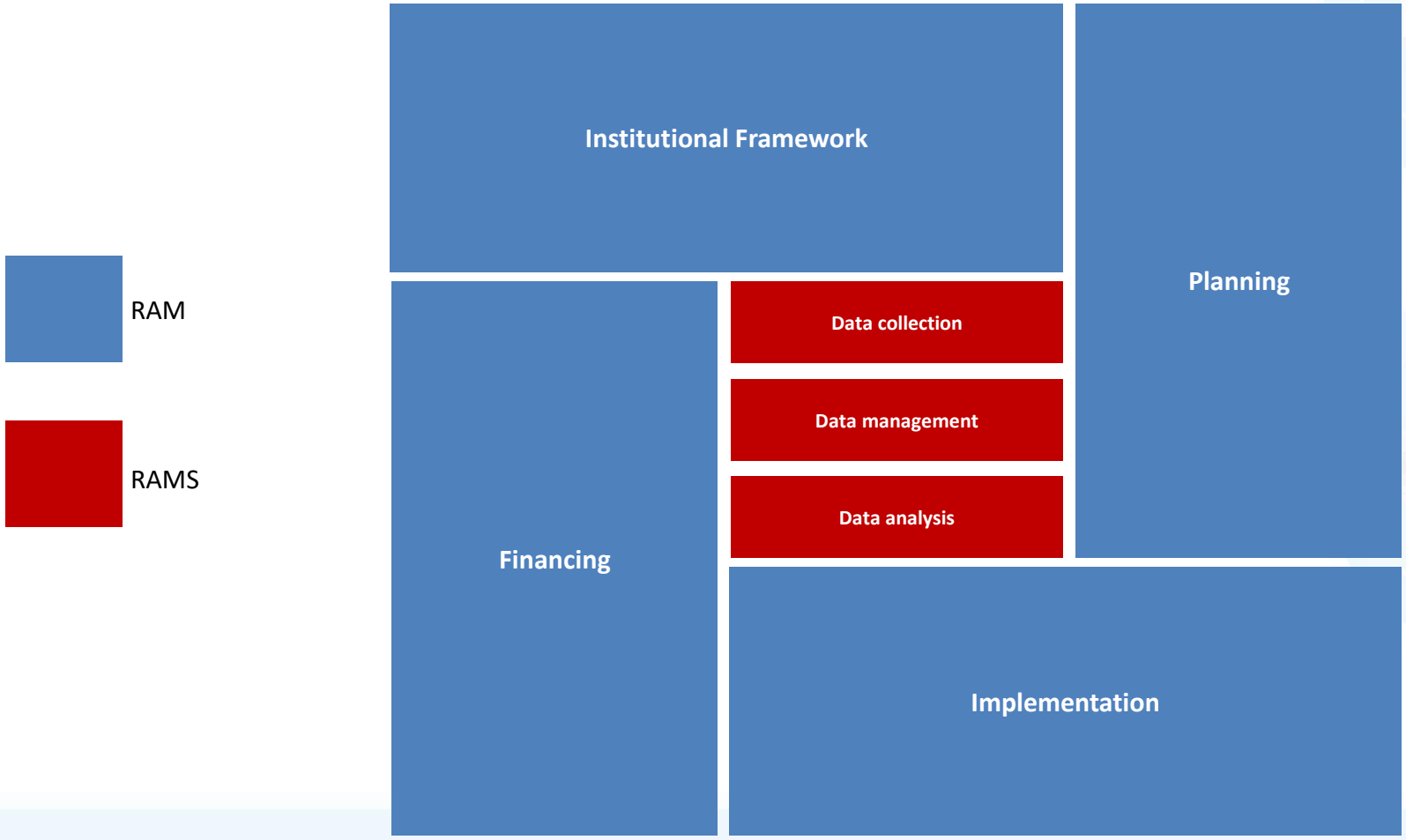
RAMS – How?

Objective, evidence-driven, and predictive



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RAMS – How ?
The TAJIKISTAN example
Foundation – the legal framework

DECREE 706, 31 December 2020 mandates the introduction of a RAMS in Tajikistan during 2021-2024 with an associated Action Plan

DECREE 617, 29 December 2022 mandates the creation of the “Centre for digitalization of the transport sector”.

MOT Decree 43, 16 MAR 2023 formally establishes the “Centre of Digitalization of the Transport Sector”.

DECREE 311, 29 May 2025 formally established a new Road Fund for Tajikistan.

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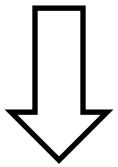
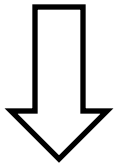
RAMS – How ?
The TAJIKISTAN example – cont'd
IFI support – the operationalization

Development Partners' Support

Sustainable transport investment



Optimized maintenance funding



Efficient maintenance programs

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RAMS – How ?
The TAJIKISTAN example – cont'd
IFI support – the operationalization

- World Bank: RAMS implementation
- ADB: Action Plan 2026–2030
- EBRD: Road Fund and institutional reforms
- JICA: Bridge database integration

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RAMS – How ?
The TAJIKISTAN example – cont'd
IFI support – the operationalization

Road Surveys and Data Collection	ADB: ROMDAS Equipment and Technologies JICA: Bridge Database integration
Data Processing, Analysis, and Reporting	ADB & WORLD BANK: Technical Assistance to the RAMS Unit and RAMS Software
Strategic Planning and Maintenance Programming	WORLD BANK: HDM-4 Software, RAM Strategy, and Coordination
Fund allocation and Contracting with GUSADs	ADB and EBRD: Road Fund and Contracting Models

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RAMS – How ?
The TAJIKISTAN example – cont'd
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RAMS – How ?
The TAJIKISTAN example – cont'd
Current status - the achievements

- RAMS software nearing completion
- Operational testing underway
- Training delivered to RAMS staff
- HDM-4 Level-2 calibration ongoing

- Software implementation progress
- Bridge database integrated
- RAM policy drafted
- Road Fund Action Plan prepared

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RAMS – How ?
The TAJIKISTAN example – cont'd

Challenges

- Insufficient RAMS staffing
- Fiscal constraints
- Limited awareness funding
- Dependence on IFI support

Road fund challenges

- First-generation Road Fund established
- Road Fund law needed
- Limited secretariat staffing
- Uncertain revenue base

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RAMS – How ?
The TAJIKISTAN example – cont'd
Future – the medium-term

- Complete RAMS operational acceptance
- Expand RAMS staffing
- Operationalize Road Fund

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RAMS – The future
Interactive Q&A Session

RAMS development in CAREC member countries

Member countries' individual route maps and timelines for RAMS

CAREC RAMS Sub-Road Working Group

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THANK YOU

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