CAREC
Central Asia Regional Economic Cooperation Program

Road Asset Management in the CAREC Region

Compendium of Best Practices

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Compendium of
Best Practices
in Road Asset
Management

Four main sections

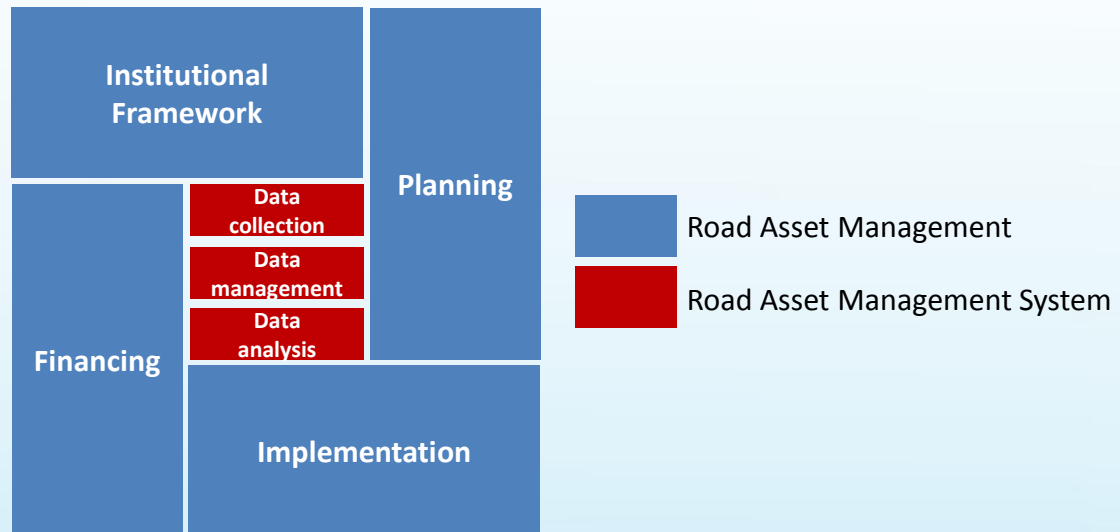| Introduction to RAMS	RAMS in CAREC Region	Best Practices in RAMS Development	Country Status Reports

Introduction to Road Asset Management

- Optimizing the <u>level</u> and <u>allocation</u> of maintenance funding in relation to medium- to long-term results on road conditions and road user costs

- Change from maintenance implementation to asset management
  - <u>From</u>: Repairing as much damage as possible with a given budget (short term)
  - <u>To</u>: Achieving a specified service level at the lowest cost (medium- to long-term)

- RAMS as a basis for road asset management

Institutional Framework		Planning
Financing	Data collection	
	Data management	
	Data analysis	
	Implementation	

Road Asset Management

Road Asset Management System

RAMS in the CAREC Region

- Six CAREC countries are in the initial phases of developing a RAMS
  - Piloting data collection, database development and data analysis

- Four CAREC countries have an operational RAMS in place
  - Regular data collection, proper data management and quality control, regular data analysis

- One CAREC country has integrated its RAMS
  - Fully institutionalized data collection, management and analysis
  - RAMS analysis used as a basis for maintenance planning and for determining funding levels and budget allocations

RAMS in the CAREC Region

ROAD NETWORK	AFG	AZE	GEO	KAZ	KGZ	MON	PAK	PRC	TAJ	TKM	UZB
Trunk road network (km)	17,900	19,016	6,824	23,485	18,810	12,979	12,131	515,000	14,067	13,644	42,530
Total roads (km)	38,700	59,000	21,800	96,718	34,810	49,695	260,131	4,577,300	26,767	58,592	183,724
Road density (km/100km²)	5.9	68.1	31.4	3.6	18.1	3.2	33.7	48.8	19.3	12.5	43.2
RAMS COMPONENTS	AFG	AZE	GEO	KAZ	KGZ	MON	PAK	PRC	TAJ	TKM	UZB
Data collection (frequency)	Starting	Annual	Annual	Starting	Starting	Annual	Annual	Annual	Starting	-	Starting
Data collection (extent)	Pilot	Network	Network	Pilot	Pilot	Network	Network	Network	Pilot	-	Pilot
Database	-	Yes	Yes	-	Yes	Yes	Yes	Yes	Yes	-	Yes
Data analysis	-	Yes	Yes	-	-	Yes	Yes	Some provinces	-	-	-
INTEGRATION OF RAMS	AFG	AZE	GEO	KAZ	KGZ	MON	PAK	PRC	TAJ	TKM	UZB
RAMS unit	-	Yes	Yes	-	-	Yes	Yes	Yes	-	-	Yes
Dedicated maintenance funding	-	Yes	-	-	-	Yes	Yes	Yes	-	-	Yes
Influencing financing	-	-	-	-	-	-	Yes	-	-	-	-
Influencing planning	-	-	Partially	-	-	-	Yes	-	-	-	-
Maintenance implementation	In-house + Bidding	In-house	Bidding	In-house + Bidding	In-house + Bidding	In-house	Bidding	In-house + Bidding	In-house	In-house	In-house + Bidding

Best Practices in RAMS Development

1. Limit the data to be collected
    (fewer data and improved quality control procedures)

2. Make the database easy to use
    (properly structured with web-based access)

3. Start with simple RAMS software
    (use off-the-shelf software with local language interface)

4. Institutionalize RAMS from the start
    (put RAMS unit in place before project start)

5. Publish annual performance statistics
    (institutionalize data analysis and improve transparency)

6. Integrate RAMS into business processes
    (use RAMS analysis as basis for planning and budgeting)

Best Practices in RAMS Development

7. Provide sufficient and predictable funding
    (avoid strong variations in budgets and introduce dedicated funding)

8. Separate management and implementation
    (use RAMS as a tool for strategic management, not for implementation)

9. Ensure high-level support to RAMS
    (convince high-level decision makers of the benefits of RAMS)

10. Continue development support to RAMS
    (ensure long-term coordinated support from development partners)

11. Develop the works implementation capacity
    (support contracting industry to improve periodic maintenance capacity)

Next Steps in CAREC Support to RAMS Development

1. **CAREC strategy for RAMS development**
   - Define clear goals to be achieved in the CAREC region by its member countries, the timeframe for doing so, the approach to be applied, and the support to be provided by development partners
   (e.g. by 2025 all CAREC countries will have an operational RAMS in place and at least half the CAREC countries will have integrated it into planning and financing procedures)

2. **CAREC country guidelines for RAMS development**
   - Define detailed set of steps to by followed by each CAREC country in further developing RAMS, with a timeframe for completing each step, and with proposed support to be provided by development partners

3. **Coordinated support to RAMS from development partners**
   - Develop coordinated development partner approach to supporting the CAREC RAMS strategy and guidelines with framework programs for each CAREC country