

# BUILDING BLOCKS OF A ROAD ASSET MANAGEMENT SYSTEM



**ASIAN DEVELOPMENT  
BANK**

**TRANSPORT FORUM**

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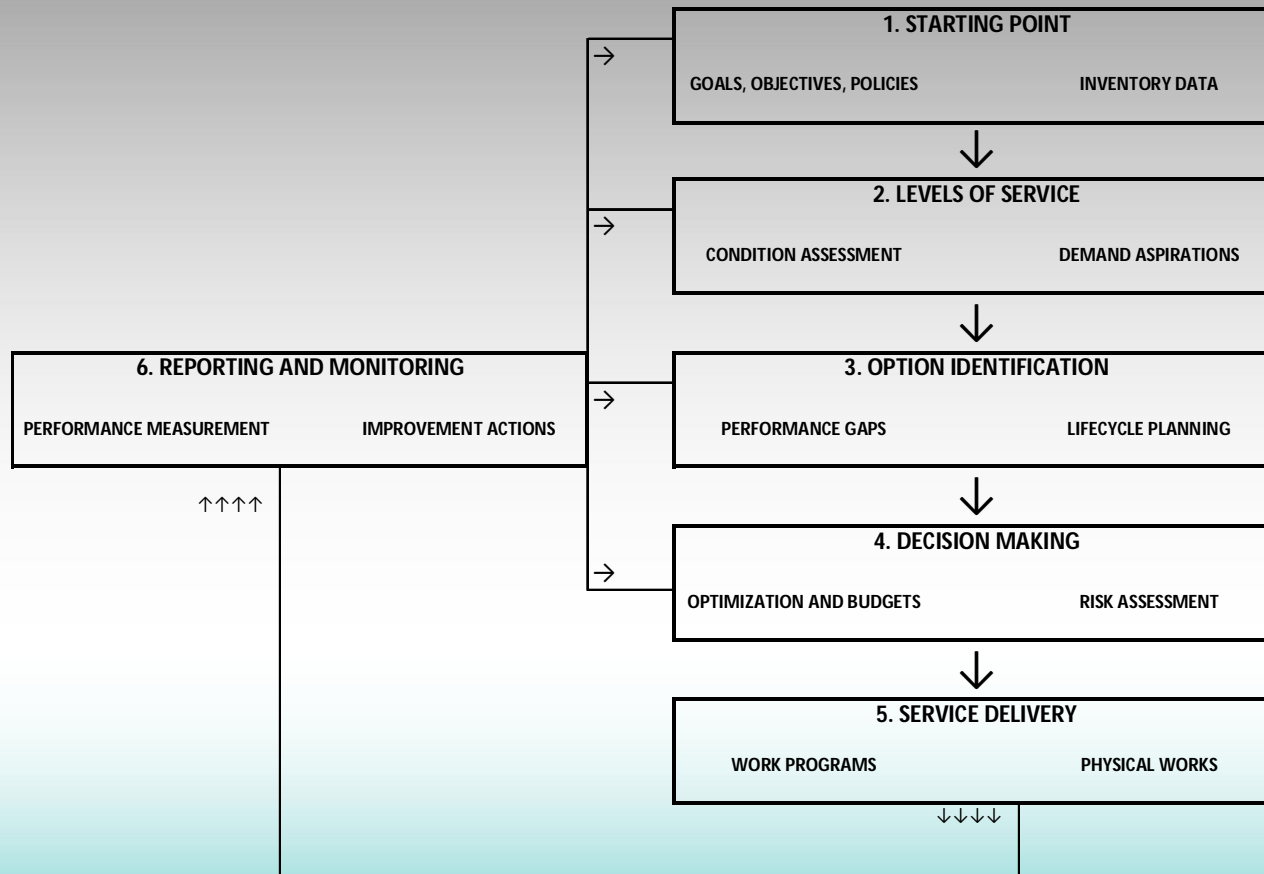
- **What is Road Asset Management?**
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- **RAM versus PMS**
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# What is Road Asset Management?

Asset management is aimed at an optimal allocation of resources for the management, operation, preservation and enhancement of the road infrastructure to meet the needs of current and future customers.



# STEPS IN AN ASSET MANAGEMENT SYSTEM



# BENEFITS OF ASSET MANAGEMENT

- Reduced life-cycle costs
- Defined levels of service and more objective basis for funding claims
- Ability to track performance
- Transparency in decision making
- The ability to predict the consequences of funding decisions and the effects of under-funding on the levels of service

# KEY COMPONENTS

- Asset Register – Data Base
- Levels of Service
- Asset Valuation – (Context: All-of-government accounts)
- Decision model

# ELEMENTS

## Starting Point

- **Goals, Objectives and Policies:** The desired relationship between the asset management plan and higher goals and objectives
- **Inventory:** Asset inventory is the foundation on which asset management processes are to be built
- **Valuation:** All valuations start by placing a value against the asset register.

# LEVELS OF SERVICE (LoS)

- **LoS:** a statement of the targeted performance of the asset (condition, availability, capacity, safety, environmental impact and social equity).
- **LoS:** an account of how the asset is performing in terms of both delivering a service to customers and maintaining its physical integrity at a defined level.



# LEVELS OF SERVICE **continued**

## Asset Condition and Demand Aspirations

- The condition of the asset as perceived by the public and road users
- The condition of the asset as determined by measurement and analysis of road condition data (road authority)
- Non-condition related levels of service covering areas such as safety, accessibility, and environmental impact.

# DECISION MAKING

## Optimization - Risk Management - Budget Constraints

- Identifying the optimal regime for the operation and maintenance of the entire network or a single asset
- Risk identification is the formal recognition and documenting of events that have the potential to adversely affect the delivery of the service to the customer
- Estimate resource availability and constraints

# RAM VERSUS PMS

## Commonalities

- Need for road inventory
- Regular condition surveys
- Inventory updating
- Decision model (software)

# RAM VERSUS PMS cont.

## RAM Value Added

- Inventory covers all asset items
- Asset items are valued
- Interaction with stakeholders
- Defined service levels (LoS) promote accountability and provide stronger basis for resource allocation

# CHOKE POINTS - HURDLES

- Leg work
- Sustainability and training
- Institutions



# DON'T UNDERESTIMATE THE LEG WORK

- Creation of a road inventory – Resources, organization, format (all highly time consuming)
- Valuation of asset – accounting principles
- Both exercises time consuming

# SUSTAINABILITY

- Staff training at all levels
- Decision model - training intensive
- Ownership
- Organizational setting of the road sector



# INSTITUTIONAL REQUIREMENTS

- Autonomous Road Authority is a must
- Existence of a Road Fund Desirable
- Who should operate the RAMS?
- Outsourcing (to engineering firms) may be needed

# ADB APPROACH

- Attention span and resources
- Allow for many years of implementation
- Don't underestimate scope of leg work
- Start with a nucleus (area slice or strategic component)

# END OF PRESENTATION

THANK YOU!

