Road Asset Management Systems
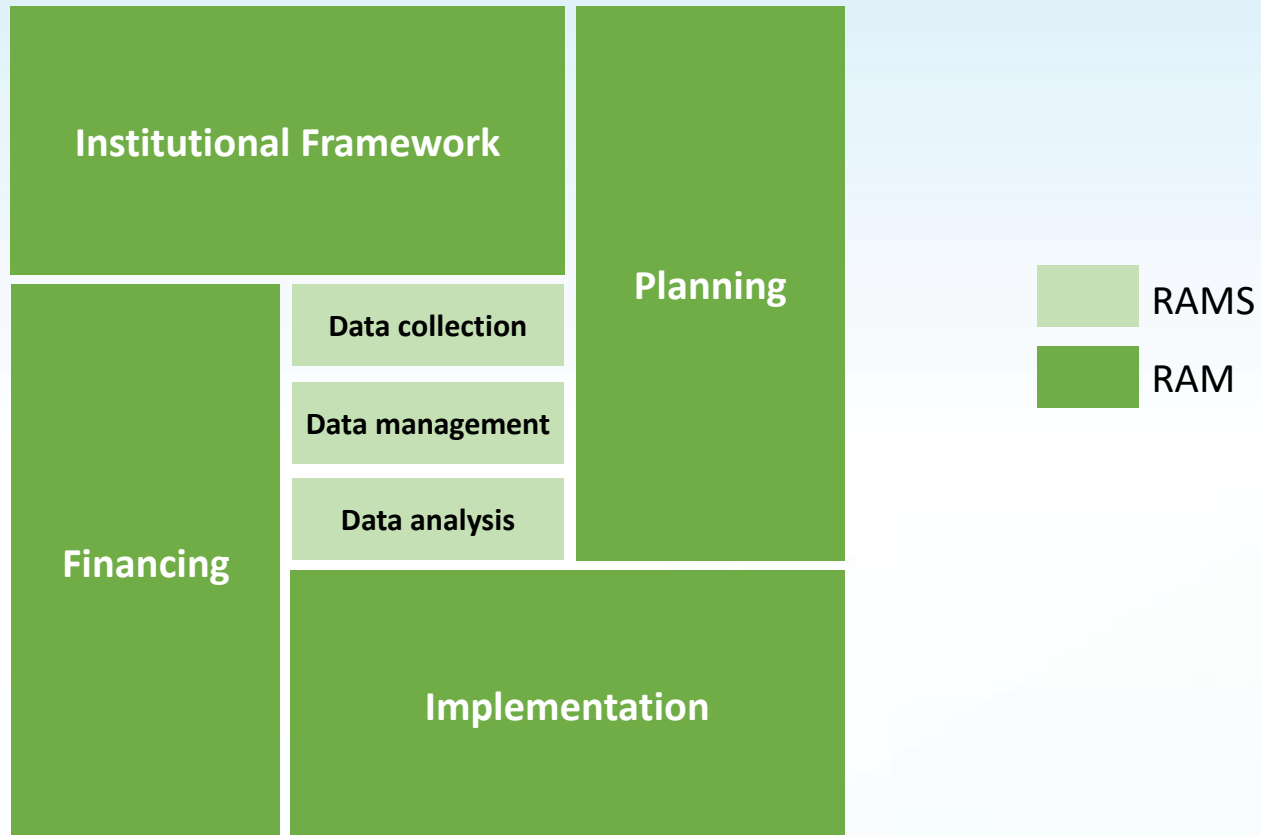
Session 5: RAMS Action Program

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Agenda

Day 1	Day 2
Session 1 **Introduction to RAMS**	Session 5 **RAMS Institutionalization**
Coffee break	Coffee break
Session 2 **RAMS Data Collection**	Session 6 **RAMS Action Plan**
Lunch	Lunch
Session 3 **RAMS Data Management**	Session 7 **RAMS Action Plan**
Coffee break	Coffee break
Session 4 **RAMS Data Analysis and Planning**	Session 8 **Conclusions and next steps**

Road Asset Management (System)

RAMS Action Program

- What we want to achieve in next 5-10 years (by year)
    - Data collection
    - Data management
    - Data analysis
    - Integration into the Institutional Framework
    - Integration into the Planning Procedures
    - Integration into the Financing System
    - Integration into the Implementation Modalities

- What this will cost (funding, staff, equipment)

- How this will be funded

- Who will lead/coordinate this

- What support is required from development partners

Example: Timor-Leste

	2020	2021	2022	2023	2024
Data collection	• Road data (inventory, condition and traffic) collected for all national and municipal roads (2,250km/$400,000/WB) • Road data (inventory, condition and traffic) collected for all core rural roads (1,975km/R4D)	• Bridge data collected (inventory and condition) for all national and municipal roads ($50,000/ADB) • Road condition data collected for national roads (500km/$10,000/DRBFC)	• Road condition data collected for national and municipal roads (1,000km/$15,000/DRBFC)	• Road + bridge inventory data collected for improved road segments (500km/$20,000/DRBFC) • Traffic data collected for important road links (500km/$5,000/DRBFC) • Road condition data collected for national, municipal and rural roads (1,500km/$20,000/DRBFC)	• Road condition data collected for national, municipal and rural roads (1,500km/$20,000/DRBFC)
Data management	• Data processed and entered into RAMS (DRBFC with WB/R4D support)	• Data processed and entered into RAMS (DRBFC with ADB support)	• Data processed and entered into RAMS (DRBFC with ADB support)	• Data processed and entered into RAMS (DRBFC with ADB support)	• Data processed and entered into RAMS (DRBFC)
Data analysis and planning	• Initial data analysis for national and municipal roads (WB using HDM-4) • Data analysis for updating Rural Road Master Plan (R4D)	• RAMS used as basis for 2022 budget request (DRBFC with ADB support) • Publish Annual Report 2020 (DRBFC)	• RAMS used as basis for 2023 budget request (DRBFC with ADB support) • Publish Annual Report 2021 (DRBFC)	• RAMS used in preparation of FYP 2024-2028 (DRBFC with ADB support) • RAMS used as basis for 2024 budget request (DRBFC with ADB support) • Publish Annual Report 2022 (DRBFC)	• RAMS used as basis for 2025 budget request (DRBFC) • Publish Annual Report 2023 (DRBFC)
RAMS Unit	• RAMS Unit created and staffed (DRBFC) • RAMS unit trained in data collection and processing (WB/R4D)	• Funding allocated to RAMS Unit ($20,000 OGE or RMF) • On-the-job training RAMS unit in data collection and processing (ADB) • RAMS unit trained in data analysis (ADB) • PD+MD trained in planning using RAMS (ADB)	• Funding allocated to RAMS Unit ($25,000 OGE or RMF) • On-the-job training of RAMS unit and PD+MD in RAMS operation (ADB)	• Funding allocated to RAMS Unit ($55,000 OGE or RMF) • On-the-job training of RAMS unit and PD+MD in RAMS operation (ADB) • Training of RAMS unit and PD+MD in FYP preparation (ADB)	• Funding allocated to RAMS Unit ($30,000 OGE or RMF)

Example: Tajikistan (draft)

	2020	2021	2022	2023	2024
Road Asset Management System	• Road survey equipment procured • RAMS equipment and software procured	• Data collection carried out for at least 1,000 km of international roads • RAMS database and GIS mapping developed • HDM4 analysis carried out	• Data for remaining international roads collected • RAMS database and GIS mapping reviewed • HDM4 analysis carried out	• Data for republican roads collected • HDM4 analysis carried out	• Condition data for at least 80% of international roads repeated • HDM4 analysis carried out
Institutional Framework	• RAMS task force identified	• RAMS task force members trained in data collection, management and analysis	• RAMS unit created and staffed • Budget for data collection allocated	• Budget for data collection allocated	• Budget for data collection allocated
Planning	• Detailed analysis of current planning procedures carried out	• Procedures for RAMS integration in planning and budget allocation agreed • 5-year rolling maintenance investment plan prepared	• RAMS results used as basis for budget request and allocation • 5-year rolling maintenance investment plan prepared	• RAMS results used as basis for maintenance plan • 5-year rolling maintenance investment plan prepared • Road network statistics published annually	• RAMS results used as basis for maintenance plan • 5-year rolling maintenance investment plan prepared • Road network statistics published annually
Financing		• Detailed analysis of maintenance funding needs and road user charges carried out • Tolling system developed and potential road sections for tolling identified	• Introduction of road user charges agreed with MOF • Required legislation for tolling pilots in place	• Agreed road user charges introduced • Tolling pilots initiated in at least two locations	• Road maintenance funding increased to at least 0.25% of GDP
Implemen-tation	• Detailed review of PBM pilots	• Identification of suitable locations for expanded PBM contracts including periodic maintenance	• Incorporation of best practices and periodic maintenance into PBM bidding documents • Procurement of new PBM contracts		• Mid-term review of new PBM contracts

Example: Tajikistan (final - sample)

- Issued through Presidential Decree #706 in December 2020

Objective	Activity	Year	Responsible entities	Funding source
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	MoT	MoT budget and other sources in line with acting legislation
Collection of accurate data on road condition and production of annual reports on road conditions based on RAMS	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	MoT in collaboration with consultant and development partners	Foreign investment and other sources in line with acting legislation
Establishment of new database and application of advanced data processing and management system	10. Development and testing of improved database (or new database) for road network assessment, entry and processing of data collected during the survey	2021	MoT in collaboration with consultant and development partners	Foreign investment and other sources in line with acting legislation
Ensure clear data analysis and planning of works for road maintenance	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	MoT in collaboration with consultants	Foreign investment and other sources in line with acting legislation
Improvement of the road maintenance financing mechanism	18. Establish a dedicated Road Maintenance Fund using a modality that is appropriate to Tajikistan	2024	MoT, MoF, MEDT	Foreign investment and other sources in line with acting legislation

Group work

- What are the next steps in developing a RAMS?

- What is the timeframe for doing so?

- Who will lead this?

- How will this be funded?

- What kind of support is required (from development partners)?

RAMS Action Program

- <u>Objectives</u>: data collection, data management, data analysis, institutional framework, planning and budgeting, financing, implementation

Objective	Activity	Year	Responsible entities	Funding source