

Conference Paper

on

Sustainable Transport Infrastructure Asset Management in the CAREC Region

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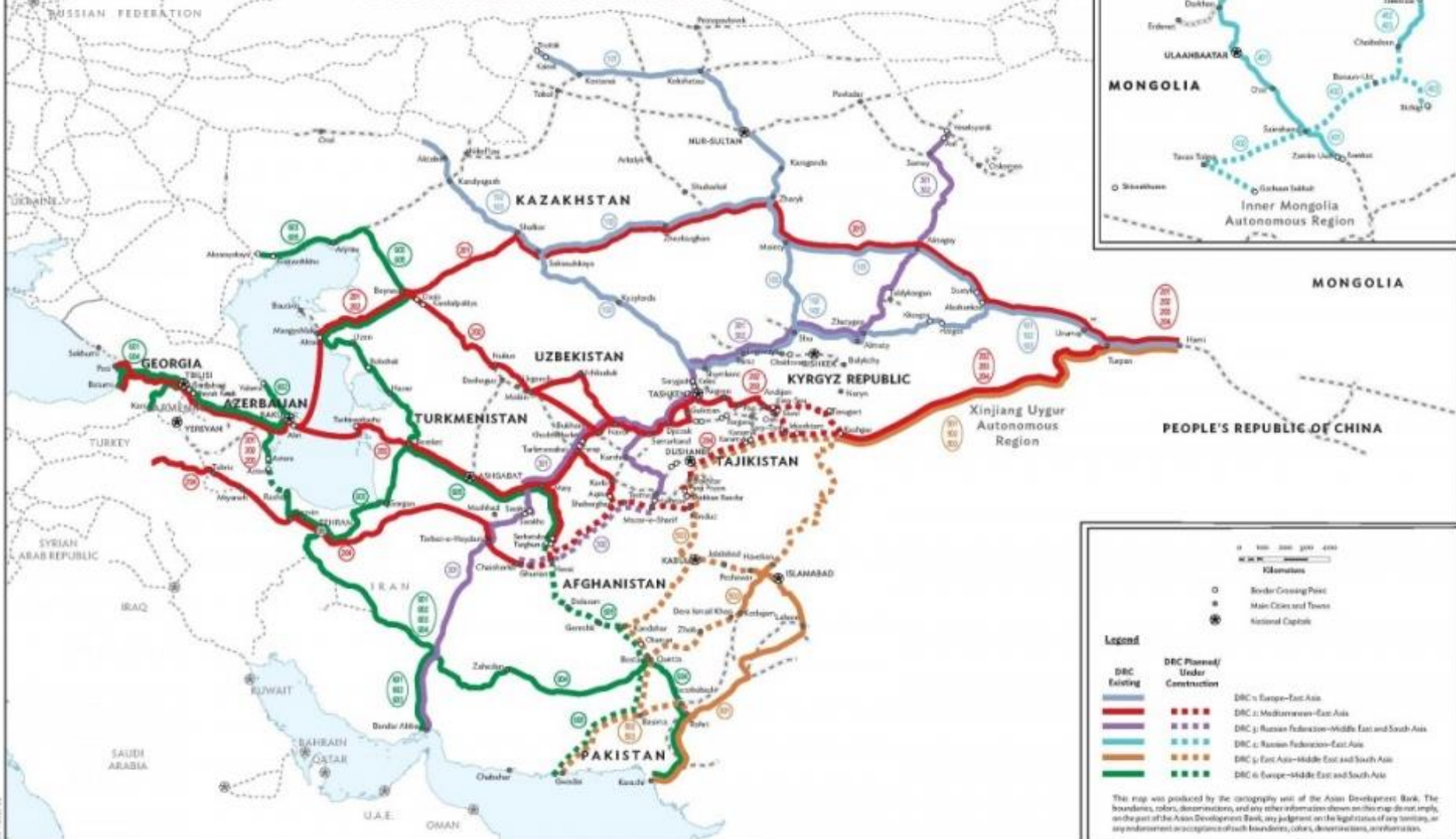
Outline

- The CAREC Corridors
- Asset Management
- CAREC Strategy on Asset Management
- Recent initiatives
- Current status of RAM in CAREC
- RAM and climate resilience
- Policy Options

The CAREC Corridors

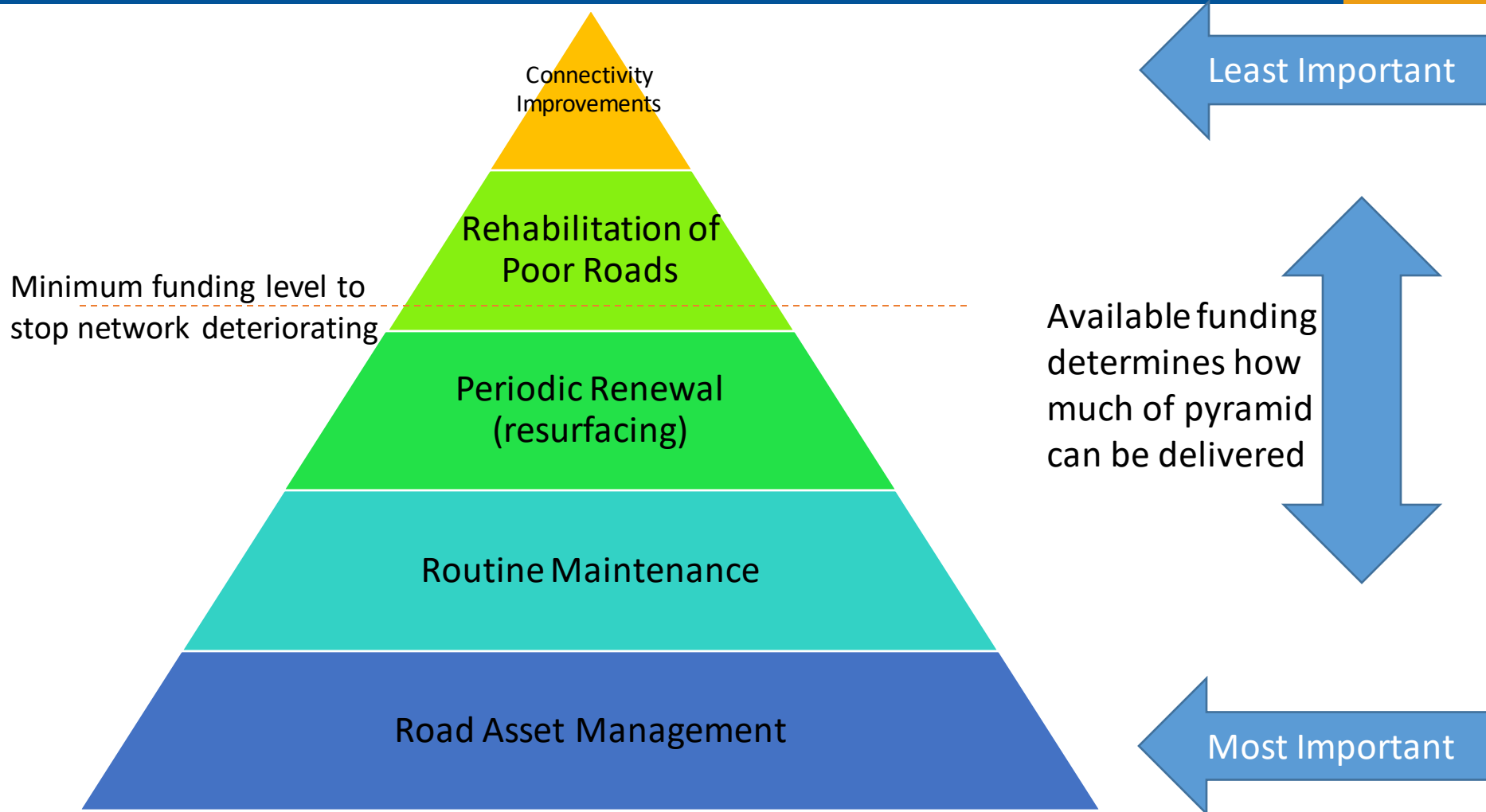
- Six transport corridors covering Central Asia
 - road, rail and maritime.
- The CAREC Transport and Trade Facilitation Strategy (TTFS 2020)
 - presented an investment plan in upgrading all six transport corridors to international standards.
- Under the 2020 Strategy Goals
 - 7,800km of CAREC corridor roads and 1,800 km of rail track built were achieved in 2017.

CENTRAL ASIA REGIONAL ECONOMIC COOPERATION DESIGNATED RAIL CORRIDORS



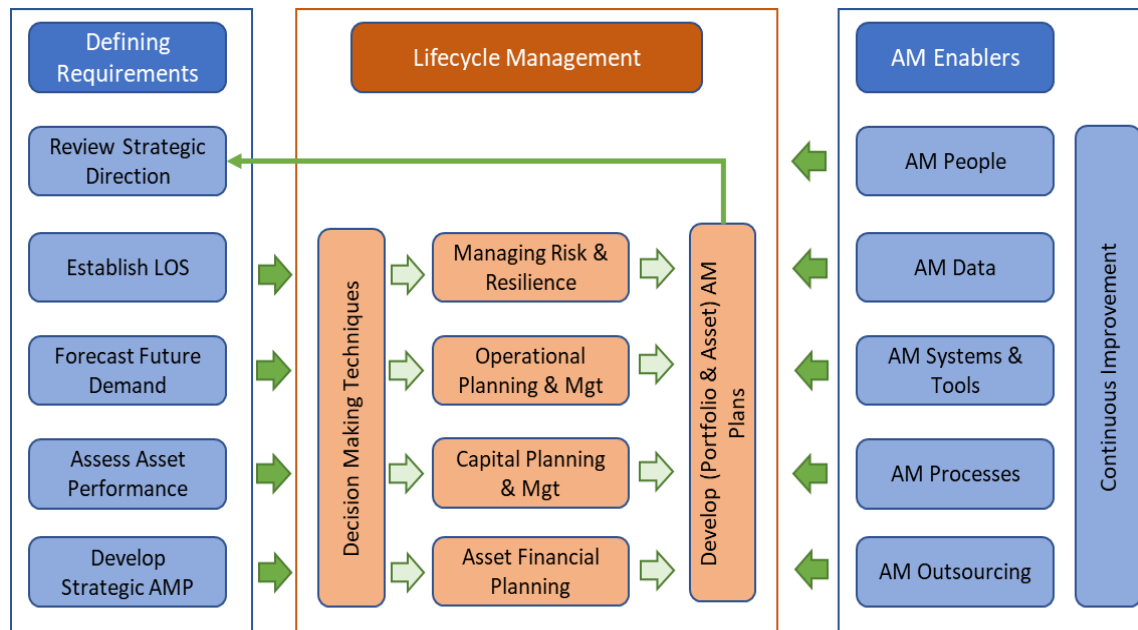
Source: CAREC Secretariat

RAM Priority



Asset Management

- CAREC Institute knowledge broker initiatives in RAM
 - Since 2020, designing and delivering training aligned with the International Infrastructure Management Manual (IIMM) processes
- Focus on a holistic view of asset management
 - Rather than just a narrow focus on data and IT solutions



Source: International Infrastructure Management Manual

CAREC Commitment to Asset Management

- The CAREC Transport Strategy 2030
 - identifies RAM as one of the five strategic pillars
- The strategy recognizes key benefits of RAM for looking after existing roads
 - it doesn't fully convey the key role that RAM plays in addressing a range of topics such as:
 - decarbonisation of the transport system
 - climate resilience and adaptation
 - integration of road safety into day-to-day operations

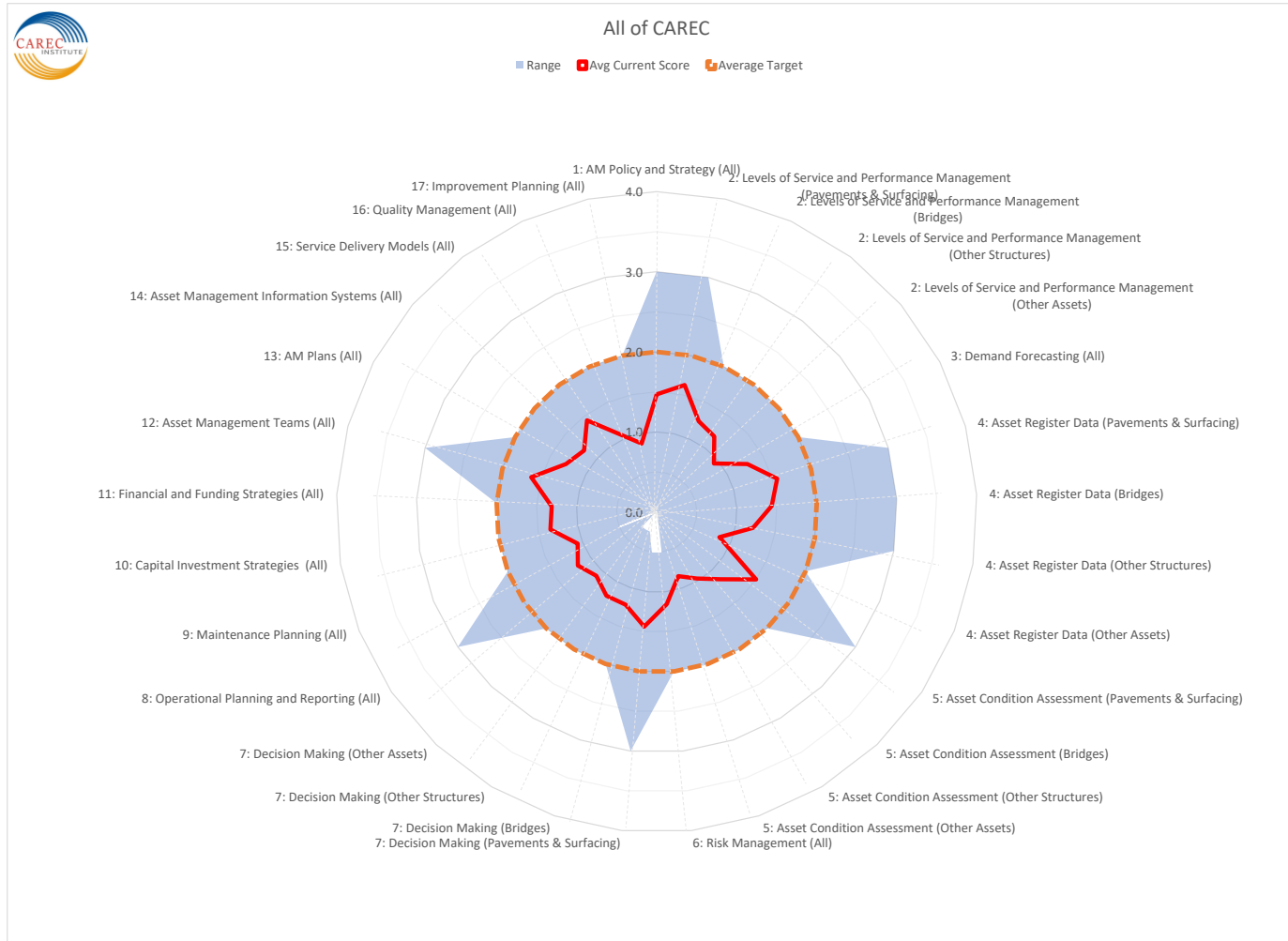
CAREC Transport Strategy 2030

- **Key issues.** Despite improvements of the CAREC road network infrastructure and road maintenance practices, budgets prioritize construction and rehabilitation and the existing funding allocation for maintenance only covers a fraction of the estimated need. ... **As a result, proper maintenance of recently completed road networks is lacking in most CAREC DMCs.** This led to accelerated deterioration of these roads which reduced the actualization of travel time savings expected from the investments...
- **Actions.** The objective of this strategic pillar of the CAREC program is to strengthen road asset management in the CAREC countries to respond to these issues. Road asset management is a strategic approach that seeks the optimal allocation of resources for the management, operation, preservation, and enhancement of road infrastructure to meet the needs of current and future road users. **Road asset management looks at the optimization of available funding and determines the optimal allocation of this funding to different roads and investment types, with the aim of maximizing the benefits of improved road conditions and reduced road user costs over time.**
- By collecting and analysing data regarding the road network and its users, governments can make more informed choices regarding the allocation of funding to either develop, rehabilitate, or maintain an ever-expanding network of roads. **This may also consider any expected climate change impacts. This approach introduces a shift in focus from short-term targets regarding the upgrading of road standards, to the long-term benefits of road maintenance for asset sustainability and future road sector funding requirements.**

Recent Initiatives

- Since 2020 the authors have been working together to both benchmark and improve the practice of RAM across the CAREC region.
- Major initiatives:
 - One-week online training (during COVID-19 travel constraints) in 2020.
 - Remote support to complete a RAM Maturity self-assessment in 2020/2021.
 - In country workshops to validate the self-assessment results, further entrench key RAM messages, and refine the RAM improvement plans.
 - Held to date in Azerbaijan, Georgia, Kyrgyz Republic and Tajikistan during 2022/23.

Current Status of RAM Across CAREC Region



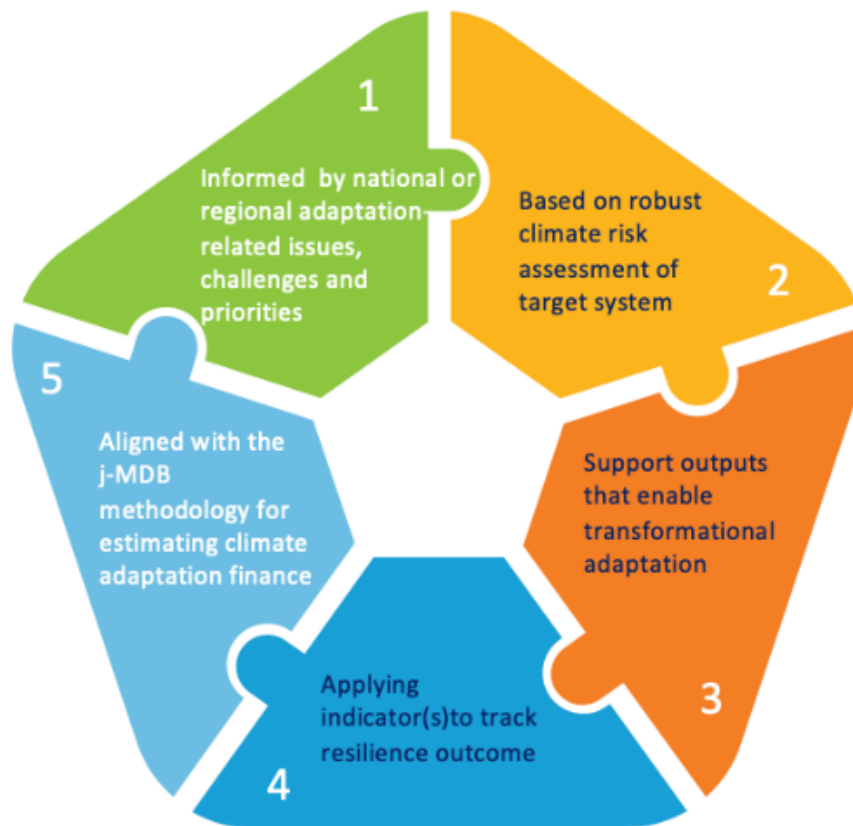
Source: CAREC Region Road Asset Management, Maturity Assessment, Final Report. CAREC Institute, 2021.

Current RAM Situation

Findings from the RAM maturity self-assessment:

- Best practice in CAREC region is comparable to international situation
- Significant variation across aspects of RAM within a country
- Significant variation across countries

RAM As A Solution to Climate Change and Climate Resilient Transport Systems



RAM provides the foundation for developing projects that are aligned to climate financing principles

Source: Asian Development Bank

Climate Resilience Requires a Holistic Approach



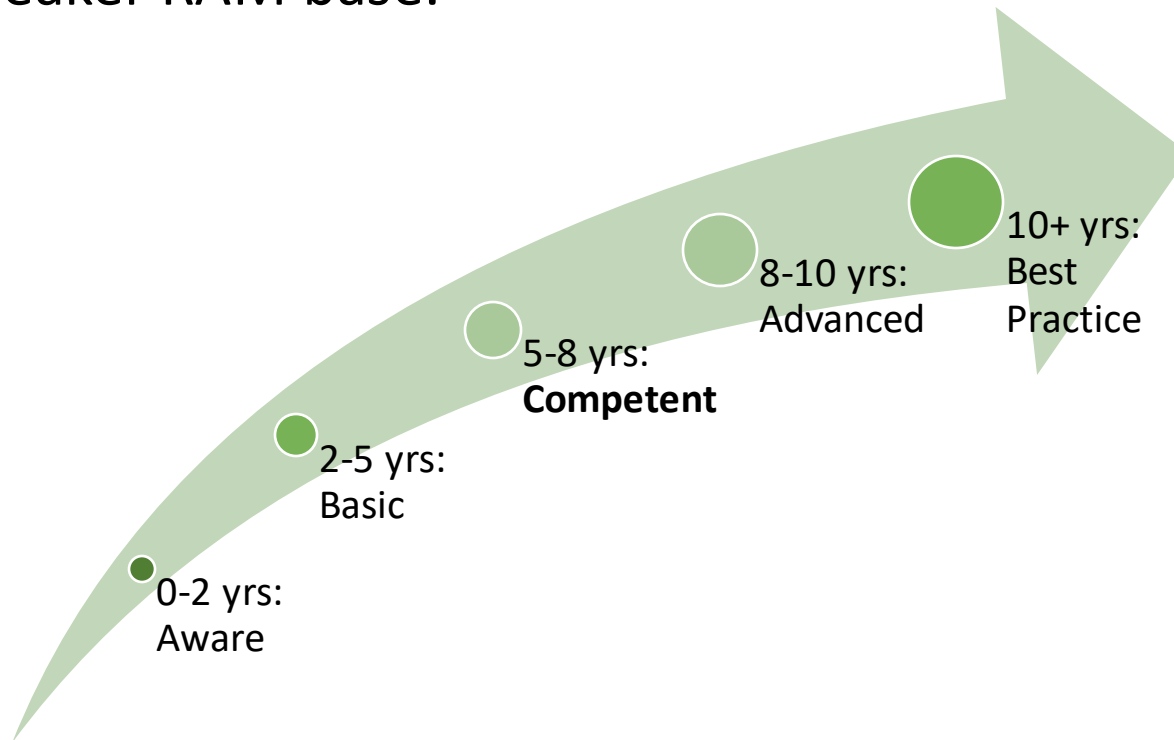
Source: Adapted from Dr T. Henning, for ADB CR Transport Workshop

Improvement Plan for RAM

- Range of improvement initiatives identified
- Region wide, where bringing in international best practice is necessary
- Country specific, where good practice exists within the region and sharing of that existing experience should take precedent in a “by CAREC for CAREC” approach

Target Timeline

- Should be on top of RAM by 2030, even for those who are starting from a weaker RAM base.



Conclusion

1. CAREC corridors are critical to the ongoing development of the central Asia region
2. Supporting those corridors with RAM of a suitable level of competency is essential to extracting the maximum benefit from the corridors
3. Recent initiatives have identified significant variations in the capability of RAM across the region
4. RAM is essential for addressing issues around climate change and other resilience issues.
5. Good RAM is a marathon, not a sprint. CAREC Institute will continue to support the member countries in their journey.

Policy Options

- **Policy Option 1** – Integrating sustainability into infrastructure planning:
- **Policy Option 2** – Promoting green infrastructure:
- **Policy Option 3** – Implementing asset management systems:
- **Policy Option 4** – Enhancing data collection and analytics:
- **Policy Option 5** – Encouraging public-private partnerships (PPPs):
- **Policy Option 6** – Incorporating resilience measures:
- **Policy Option 7** – Prioritizing capacity building and knowledge sharing:

Thank you!

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