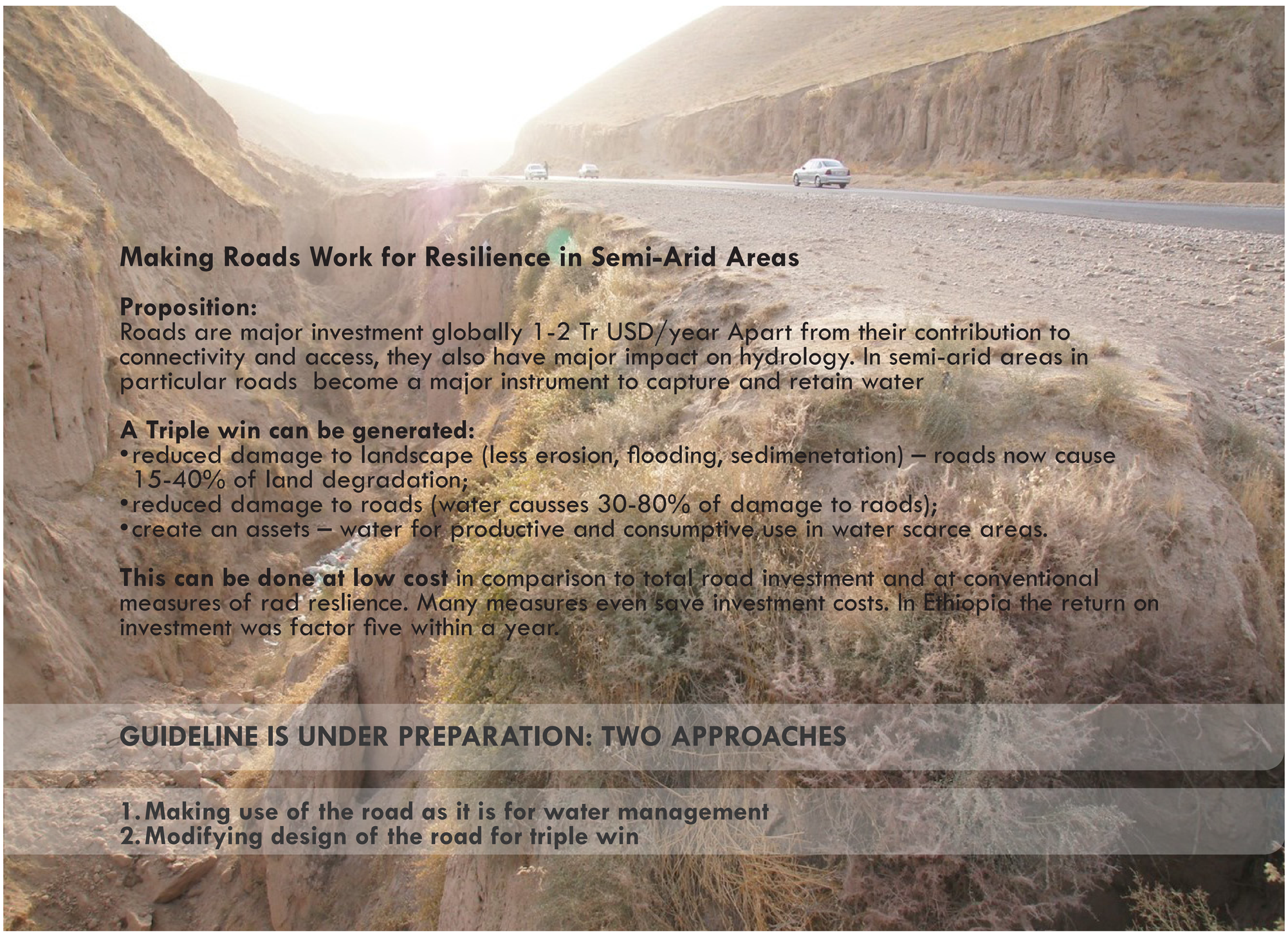
INTEGRATING CLIMATE CHANGE ADAPTATION AND WATER MANAGEMENT IN THE DESIGN AND CONSTRUCTION OF ROADS

THE WORLD BANK META META Roads for Water



Massive road triggered erosion (Tajikistan) - beneficial road water management will reduce such landscape degradation from roads

Making Roads Work for Resilience in Semi-Arid Areas

Proposition:
Roads are major investment globally 1-2 Tr USD/year Apart from their contribution to connectivity and access, they also have major impact on hydrology. In semi-arid areas in particular roads become a major instrument to capture and retain water

A Triple win can be generated:
- reduced damage to landscape (less erosion, flooding, sedimenetation) – roads now cause 15-40% of land degradation;
- reduced damage to roads (water causses 30-80% of damage to raods);
- create an assets – water for productive and consumptive use in water scarce areas.

This can be done at low cost in comparison to total road investment and at conventional measures of rad reslience. Many measures even save investment costs. In Ethiopia the return on investment was factor five within a year.

GUIDELINE IS UNDER PREPARATION: TWO APPROACHES

1. Making use of the road as it is for water management
2. Modifying design of the road for triple win

ETHIOPIA: ROAD SIDE INFILTRATION TRENCHES

TAJIKISTAN: ROAD DRAINAGE TO PRODUCTIVE AREAS

CHINA: ROAD SIDE PONDS

MOZAMBIQUE: CONVERTED BORROW PIT

BURKINA FASO – WATER STORAGE WITH ROAD BODY

GLOBAL – PROTECTING UNPAVED ROADS WITH WATER BARS AND ROLLING DIPS

KENYA – ROAD DRIFTS FOR WATER RETENTION

www.roadsforwater.org

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