RAP Approach to Rural Road Maintenance
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Rural Access Programme

Rural Road Network in Nepal

Total rural road network – 57,632km

All weather roads - 14,828km (DRCN= 7,180 +VRCN =7,648)km
  – vehicles plying round the year

Fair weather roads – 42,804 km
  – District roads – 18,548km
    • About 50% length with vehicle pliability facility during the dry season.
  – Village roads – 24,256km
    • Vehicle pliability – 24%.

(Source: Statistics of Local Road Network 2016)

Reasons for the low pliability
  – Non engineered bulldozed roads – substandard roads
  – Lack of maintenance
  – Inadequate funding to complete road construction works
  – Low level of institutional capacity and skill manpower

ILO Model for Nepal

- Construction cost NRS 6 million/km
- Maintenance @5% NRS 300,000/km
- Prevents deterioration of 20% per year

For the same investment of 1710 million!

Road Deterioration Cycle

<table>
<thead>
<tr>
<th>Years Beyond Initial Construction</th>
<th>Slurry Seal ($9,000)</th>
<th>Slurry Seal ($9,000)</th>
<th>Slurry Seal ($9,000)</th>
<th>Slurry Seal ($9,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Maintenance</td>
<td>Mill and Fill ($97,800)</td>
<td>Mill and Fill ($97,800)</td>
<td>Reconstruction ($436,400)</td>
<td>Reconstruction ($436,400)</td>
</tr>
<tr>
<td>Maintenance</td>
<td>NO MAINTENANCE Total cost = $872,800 per block</td>
<td>MAINTENANCE Total cost = $240,600 per block</td>
<td>--- Average PCI = 57</td>
<td>--- Average PCI = 84</td>
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</tbody>
</table>

Cost to the National Economy

- 55% of LRN built since 2000 was no longer trafficable by 2012.
- It is estimated that this represented a loss of investment worth US$ 1 billion.
Rural Road Maintenance

1. RMG road maintenance (Routine & recurrent maintenance)

- RAP RTI maintenance pilot introduced road maintenance group (RMGs) on part time basis in 2012.
- RMG comprises 4-7 workers, at least 1/3 of whom are women, residing along road corridors.
- Work contracts with RMGs and paid to groups
- Fixed input in a range of 80 – 156 days/km/year and paid on district daily wage rates
- Annual cost of maintenance US$ 600 – 800 per km/year.

RMG engaged in road maintenance works
Over 90% of the cost goes on wages.

Rolled out in 14 programme districts and covered 2300km of district core road network 2014.

As a result percentage of traffic open days increased from
- 97.6% to 99.4% during the dry season and
- 83.4% to 96.9% during the wet season of the year in fair weather district roads.

GON and The world Bank jointly funded SNRTTP introduced RMG road maintenance approach in additional 32 project districts

RMG guideline prepared and DOLI adopted it for rural road maintenance in 2016

GON started funding for RMG road maintenance works in RAP districts since last 2 years
2. Specific Maintenance –
Introduced Specific Maintenance Groups, a labour based approach. 2 cycles of works resulted very good results compare to the conventional approach of mobilising user committees.

3. Term Maintenance –
Use of machine and labour thru contractor. Contract based on schedule of rates. Found very efficient to increase working season and maintain quality works.
Thank you for your attention

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