EFFICIENT TRAFFIC AND DEMAND MANAGEMENT OF MANALI

SHALINI AGNIHOTRI
HP POLICE
MANALI - WOES

- 30-40 lacs visitors/year
- 5000 hotels/guest houses/stays – legal/illegal
- 3500 local taxis – 6000 in peak season
- 120 Volvos – 300/day in peak season
- 5-8 hrs standstill – upto 12 hrs in peak season
- 6-7 km NH 21 – upto 20 km in peak season
- Ecological damage
- Policing challenges
PROJECT AREA

Rohtang Pass

Manali town

NH 3
PROBLEMS - DIAGNOSED

- Uncontrolled/unregulated traffic plan
- Lack of infrastructure – parking places, halt stations and shuttles
- Under-utilized available PT and local MOTs
- Over pricing and service issues
## What do we have at hand?

<table>
<thead>
<tr>
<th><strong>STRENGTHS</strong></th>
<th><strong>WEAKNESSES</strong></th>
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<tbody>
<tr>
<td>1. Sufficient local modes of transport</td>
<td>1. Ill-planned construction-growth</td>
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<td>2. Widening of NH</td>
<td>2. Old roads–no widening</td>
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<td>3. Local support</td>
<td>3. Rains, snowfall-damage</td>
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<th><strong>OPPORTUNITIES</strong></th>
<th><strong>THREATS</strong></th>
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<td>1. Unutilised land mass – create parking</td>
<td>1. Continuous growth - vehicles on road</td>
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<td>2. Unexplored shuttles</td>
<td>2. Encroachment, lack of enforcement</td>
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<td>3. Controlled, regulated use of available MOTs</td>
<td>3. Environmental, sustainability issues</td>
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PROJECT NEED

- New traffic plan - all traffic bottlenecks and implementable solutions
- Integrated and regulated in a sustainable and economically viable way – local MOTs
- Command and Control Centre - better enforcement and unified command.
- Capacity building and training
PROJECT AIM

- Tinker with available resources and regulate them
- Improve existing infrastructure
- Better traffic management and policing
- Sustainability – tourism and ecology
IDENTIFIED STAKEHOLDERS

- Police
- Municipal Corporation
- Local Administration
- Taxi/Auto/Bus Associations
- Hotel Associations
- HRTC
- Department of Transport
DATA ANALYSIS

• Approximate vehicle in and out of Manali in peak tourist season – 5,200 per day
• Average trip frequency – 3.7
• Average trip length – 5.2 km
• Alternate site for parking, transit.
• Command and Control Centre – established
PROPOSED PLAN

- Large parking space outside the town – Rangri -
- No tourist vehicle inside the town – one way plan
- Parking charges - develop amenities, expand parking
- Integrate rotationally local MOTs - alternative conveyance - within and outside Manali.
- Regulation – DoT, HRTC, local administration
- Command and Control Centre at Manali
ONE WAY PLAN

Manali town

Rohtang
Project Area

Alternate parking site
CONT...

- Dedicated team – all stakeholders included
- 2Ws – locals – priority in one way
- Prioritize E-buses for Rohtang visit – free passage and cost one fifth of private vehicles
- Engage local youth and employment generation – taxi operators and amenities in parking area
IT INTERVENTIONS

✓ E-ticketing

✓ Smart card – integrations of services/fare

✓ Command and control centre – live feed, ops, maintenance

✓ E-bus
FUTURE COURSE

- Mobile based application – developed – under audit with DIT
- Training and team building
QUESTIONS/SUGGESTIONS