



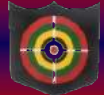
# PROJECT VIJAYAK



Enhancing Road Safety in  
Snow Bound Areas



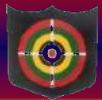
# **PREVIEW**



- **Incidence of Road Accidents**
- **Hazards of driving in snow bound areas**
- **Concept of Road Safety and Audit**
- **Actions at Project Level**
- **Practical Tips for Drivers**

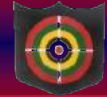


# **INCIDENCE OF ROAD ACCIDENTS IN INDIA**

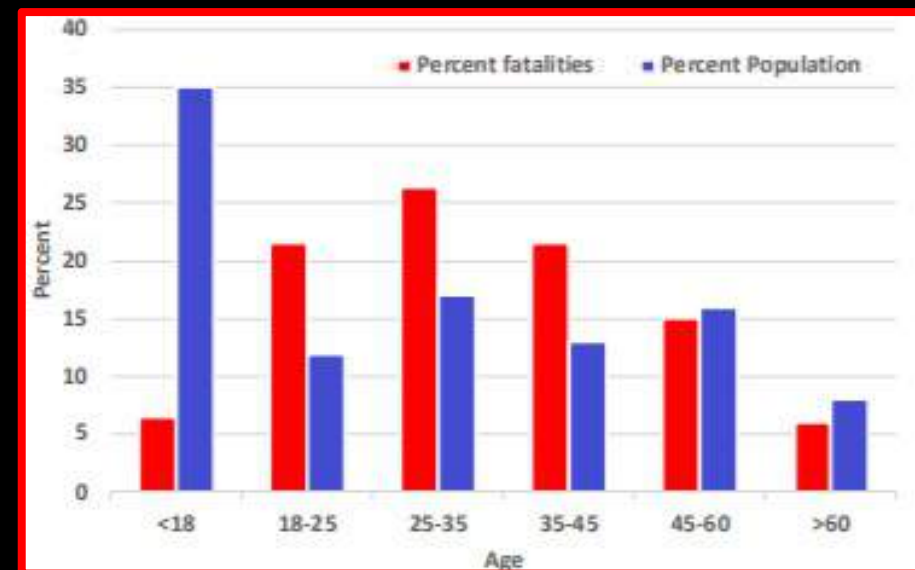
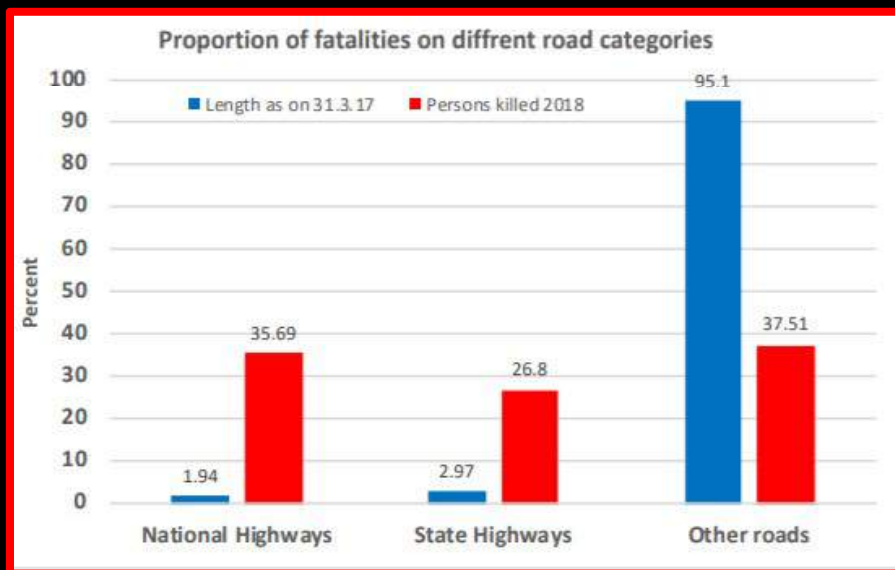




# INCIDENCE OF ROAD ACCIDENTS IN INDIA



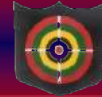
- Road accidents kill almost 1.5 lakh people annually. Accordingly, India accounts for almost 11% of the accident related deaths in the World.
- As per the consortium of Delhi IIT & DMITS, commissioned by MoRTH to estimate the socio-economic costs of road accidents, the total estimated socio economic cost of road accidents reported by India in 2018 was Rs 1,47,114 crores which was equivalent to 0.77% of the nation's GDP.



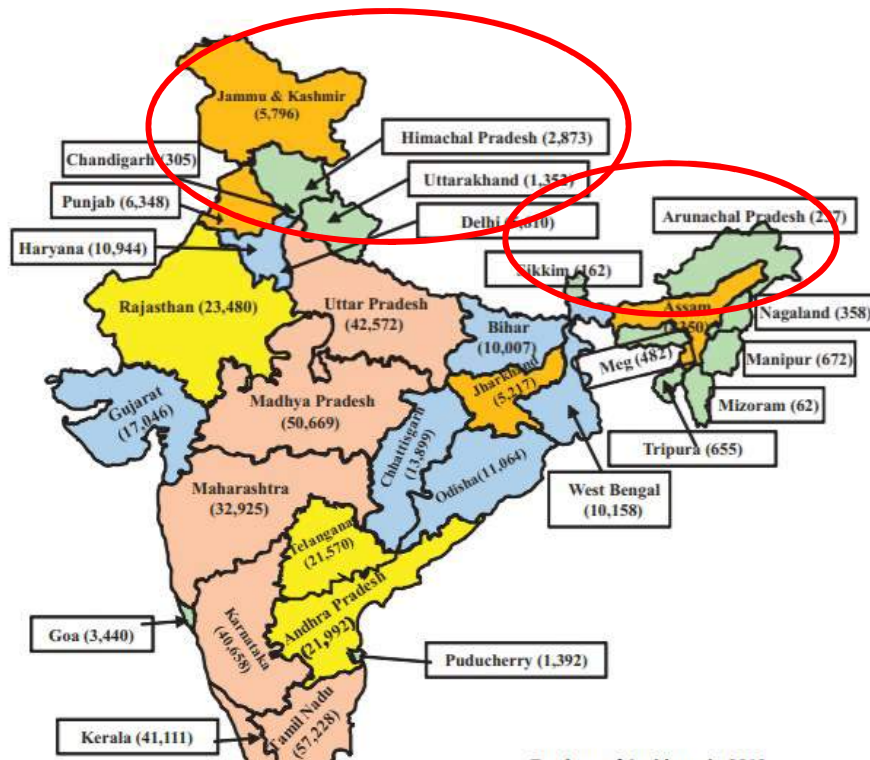
Source: Road Safety in India: Status Report 2020



# INCIDENCE OF ROAD ACCIDENTS IN INDIA

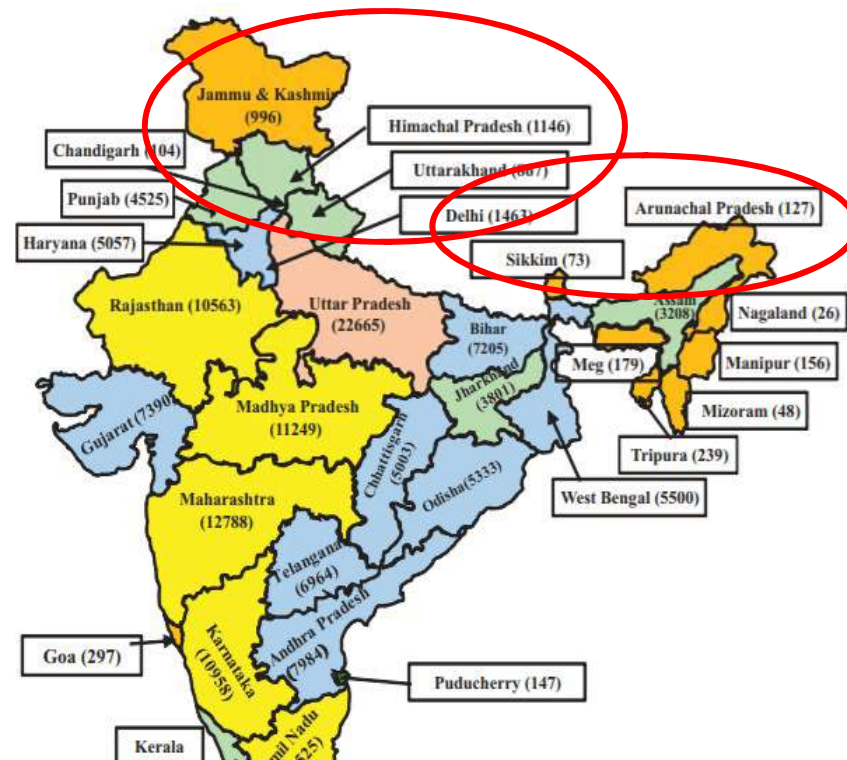


Map 1.1 Road Accidents in 2019 - State-Wise



**Percentage of Accidents**  
(J&K/HP/UK/SKM/AP – 10,420/4,49,000  
= 2.32%)

Map 1.2 Persons Killed in Road Accidents in 2019 - State-Wise



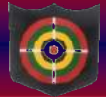
**Percentage of Deaths**  
(J&K/H.P/UK/AP – 3,209/1,51,113  
= 2.1%)

Above 15,000



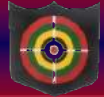


## HAZARDS OF WINTER DRIVING





# HAZARDS: SNOW BOUND AREAS



- **Slick roadway**
- Increased chance of skidding
- **Increased stopping distance**
- Reduced visibility
- **Slower traffic**
- Potential for hypothermia, if stranded
- **Avalanches**
- Sinking of glaciated roads
- **Overloading of bridges due to snow accumulation**



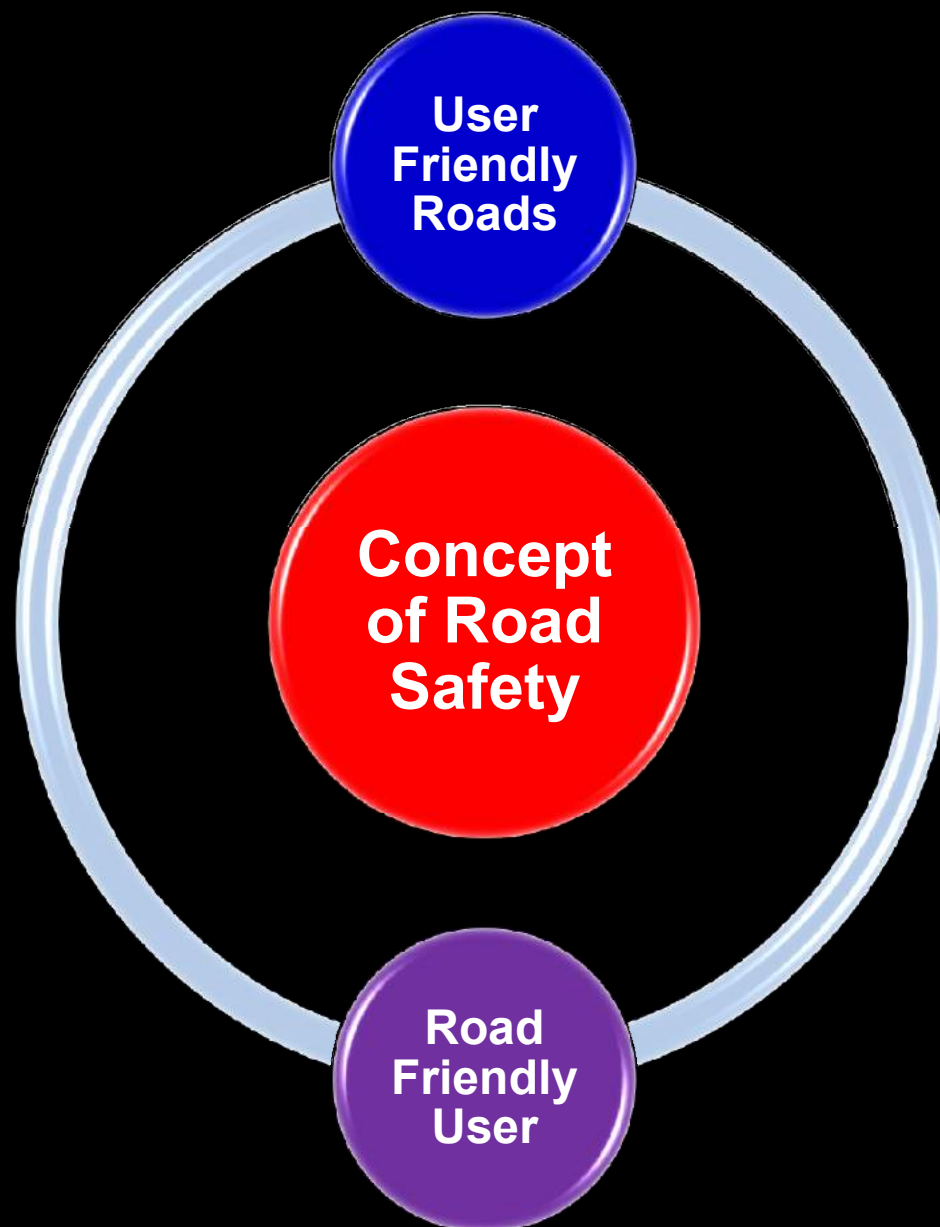
## CONCEPT OF ROAD SAFETY & AUDIT





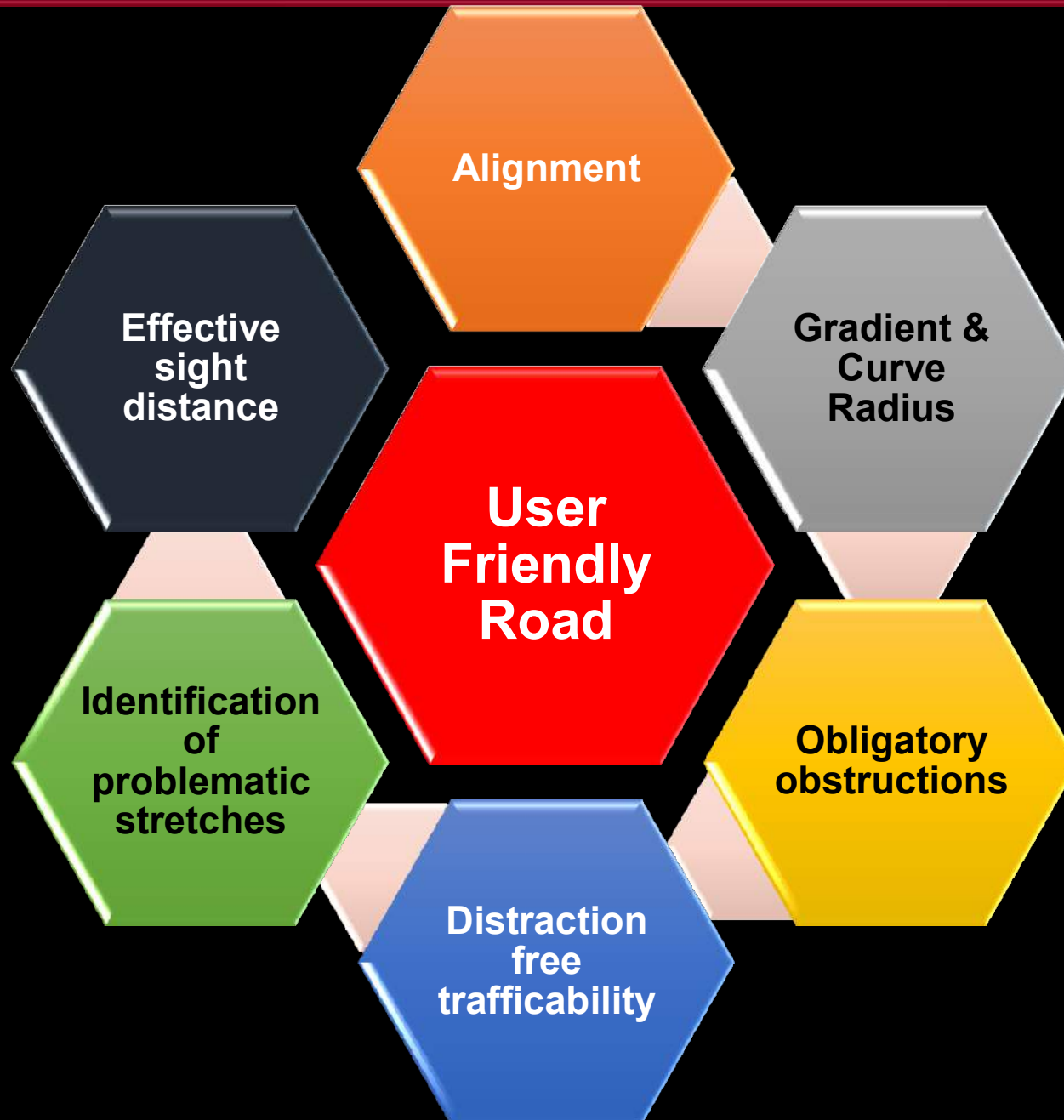
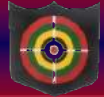


# CONCEPT OF ROAD SAFETY



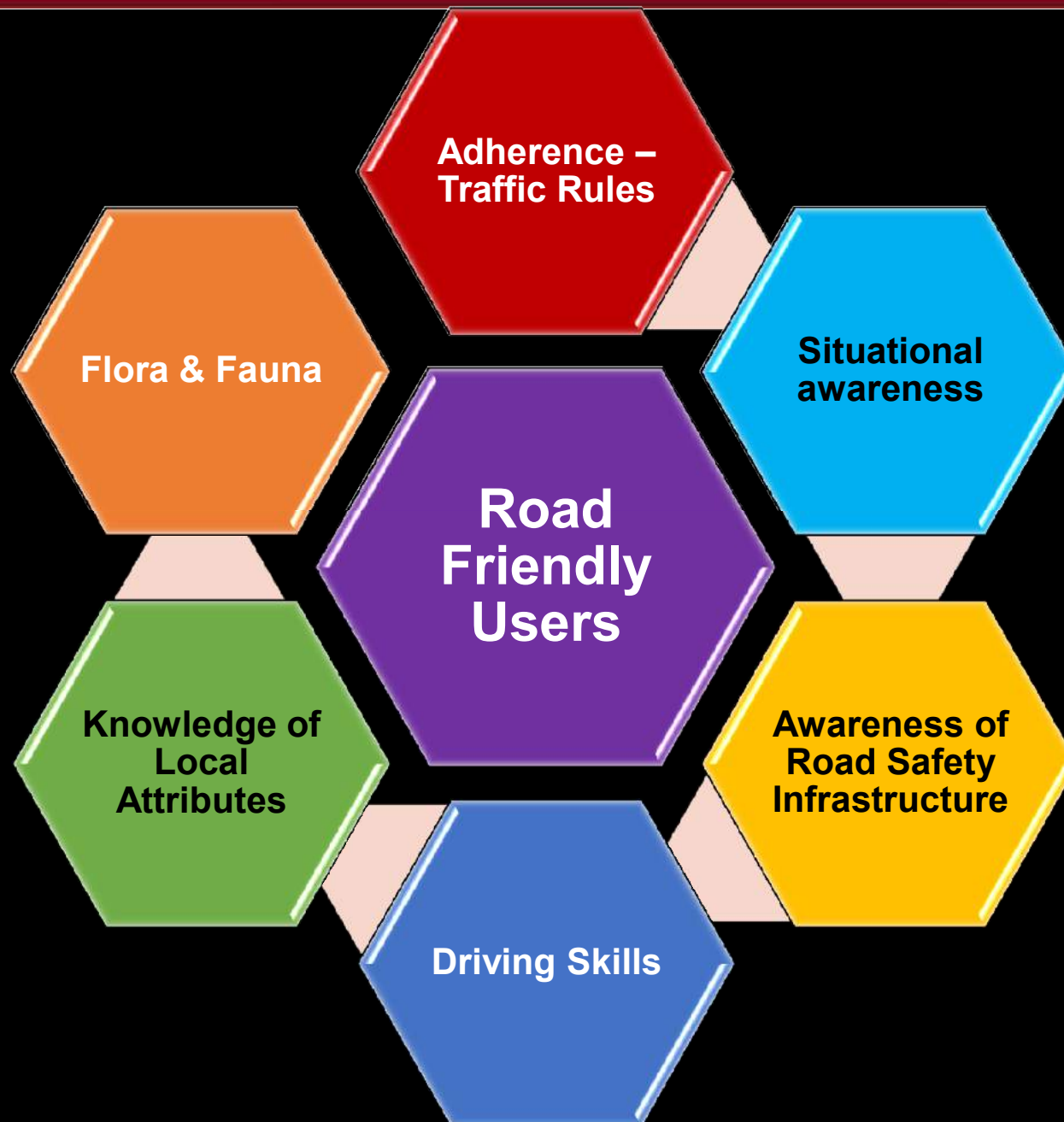
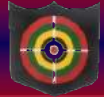


# **CONCEPT OF ROAD SAFETY**



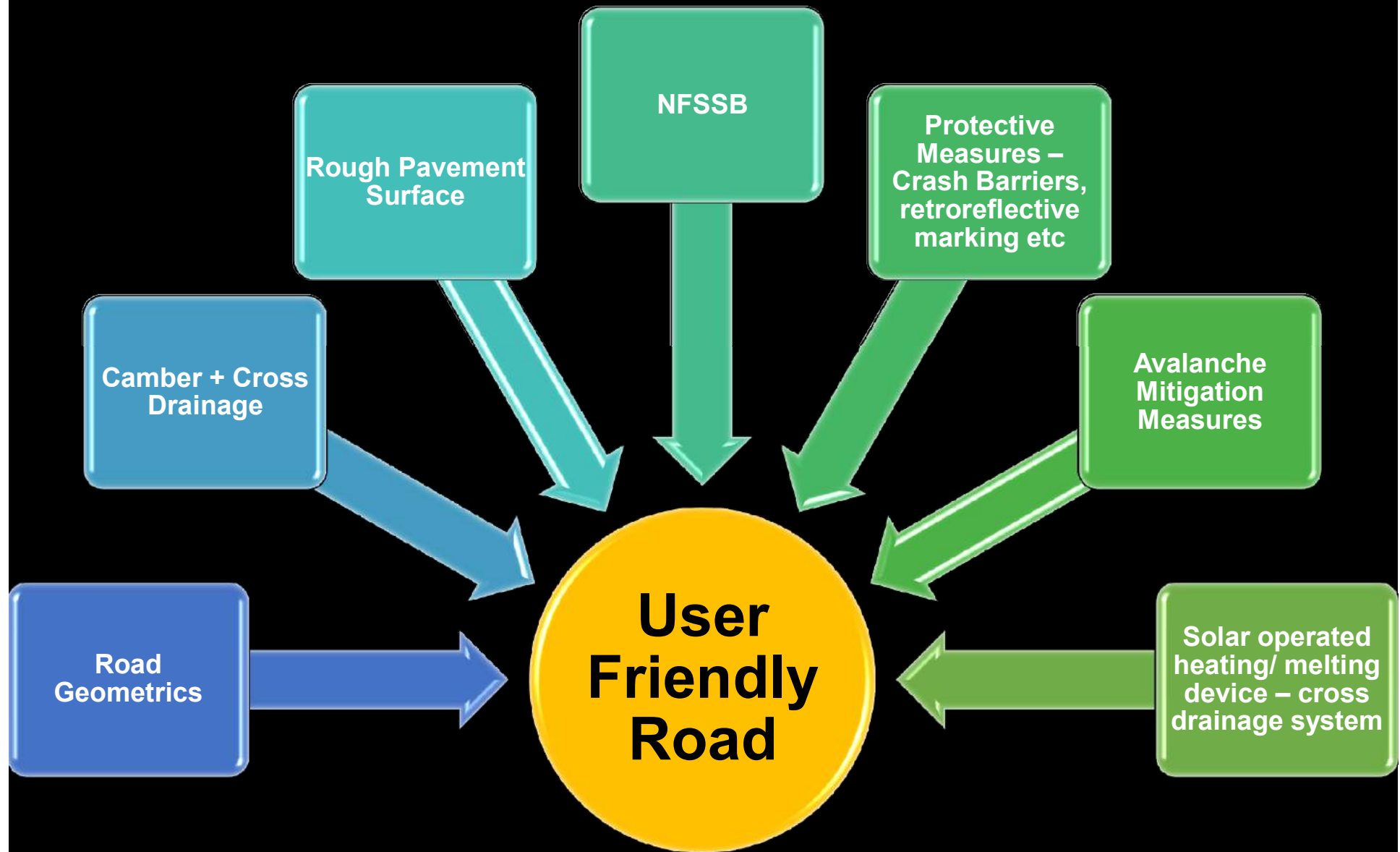


# **CONCEPT OF ROAD SAFETY**





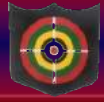
# TECHNICAL MEASURES TO ENHANCE ROAD SAFETY





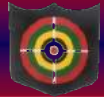


# AUDITS





# AUDITS



## Routine

Address defects developed on road / in existing road infrastructures, if any

Bridge safety Audit

## Periodical

Repair road infrastructure well in advance to nullify black spots

Establish logistic support space / tools for the traffic well in advance viz Ambulance, Highway Patrol etc

▪Raise awareness among locals towards road safety & preventive measures for tentative road hazards, if any

## Long Term

Address shortcomings in road geometrics, if any

Enhance width of freedom for vehicle movement

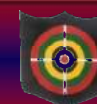
Establish alternate ways / solutions for black spots, if any

Establish informative / warning sign / boards, if any

Avalanche mitigation structures



## ACTIONS AT PROJECT LEVEL





# ACTIONS BY PROJECT



## Preparatory

- **Protective works at known slide locations**
- Clearing cross drainage works
- **Ensure serviceability of snow clearance eqpt**
- Activate dets, stocking & prepositioning of eqpt
- **Coordinate recovery, ambulance, highway patrolling and communication with local administration & army formation**
- Interaction with local weather broadcasts & SASE

## During Snow

- Issue advisory for traffic regulation
- **Real time notification of road status**
- Dets to be prepared & equipped for relief & rescue operations, casualty evacuation, receiving stranded passengers and providing emergency care
- **Remain in communication with SDRF/ NDRF for coordinated emergency response**

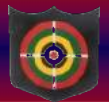
## Post Snow

- Resume clearance from multiple attack points, as soon as possible
- **Regulate movement – threat of avalanches is imminent**
- Calibrated movement – road alignment is generally not visible
- **Re-establish dets as far forward as possible**
- Re-establish mobile communication in coordination with the service provider



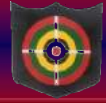


# **PRACTICAL TIPS FOR DRIVERS**





## COMMON MISTAKES: DRIVING IN SNOW BOUND AREAS



### “Overdriving”:

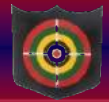
- **Driving too fast**
- Not leaving enough space between vehicles
- **Braking too hard**
- Making sudden changes of lane

Travel too slow - **The vehicle doesn't have enough momentum to be able to push through heavier snow without getting stuck.**





# PREPARE FOR YOUR TRIP



- *Be prepared ..... know the conditions*
  - ✓ **Snow later in day?**
  - ✓ **Temp dip below freezing?**
- Safe drivers know the weather, and their limits. If the weather is bad remember, *Ice and Snow, Take it Slow, or just don't go.*
- **Make sure you can see and be seen.**







**JAI HIND**

**SOCIAL NEWS  
XYZ**