

TRAINING ON

Planning and Design of Smart Infrastructure for Biodiversity Protection



25–27 April 2022

Rhino Lodge, Sauraha, Nepal



Wildlife Friendly measures on the Kaziranga National Park Stretch of NH-37



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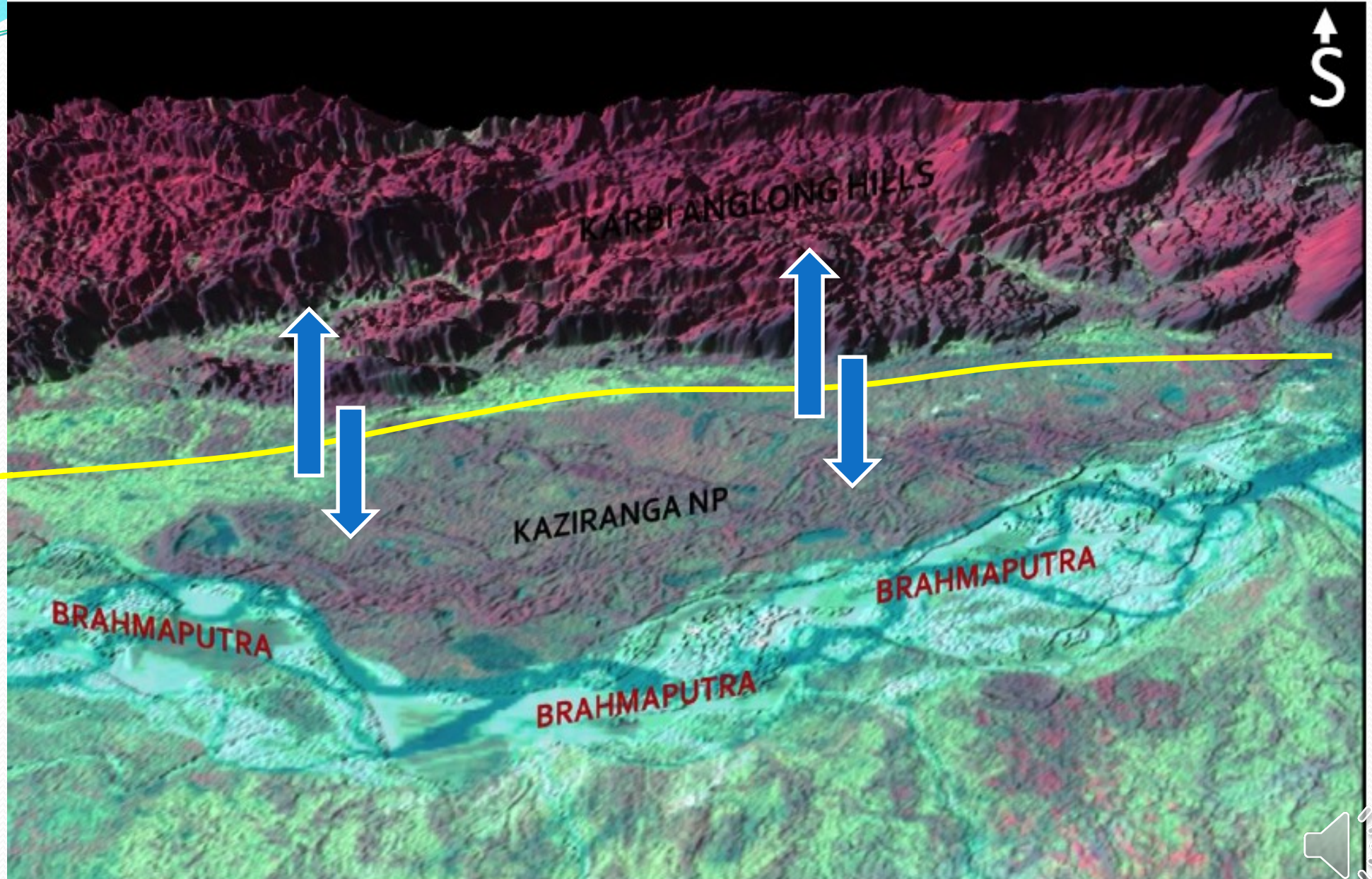
Biodiversity hotspot

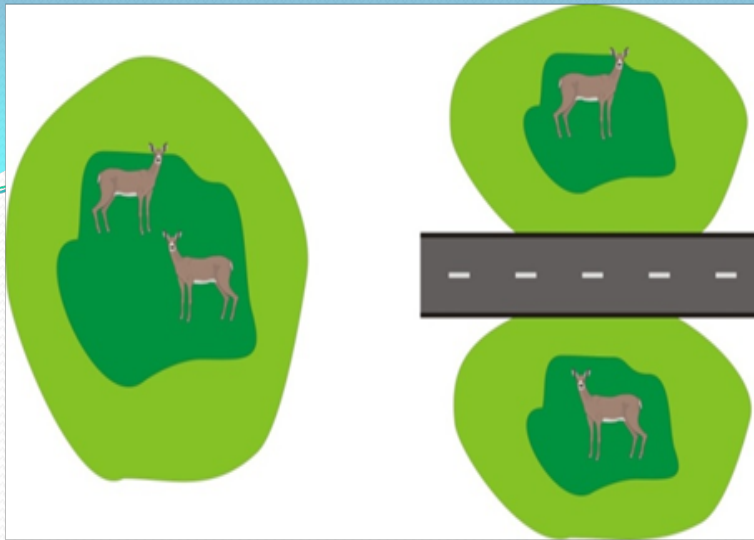
Wildlife of Kaziranga

- Rhino : 2413
- Tiger : 104
- Elephant : 1089
- Swamp deer : 868
- Buffalo : 1937
- Fish : 86 Species
- Birds : 500+ Species
- Reptiles : 28 species
- Mammal : 39 Species

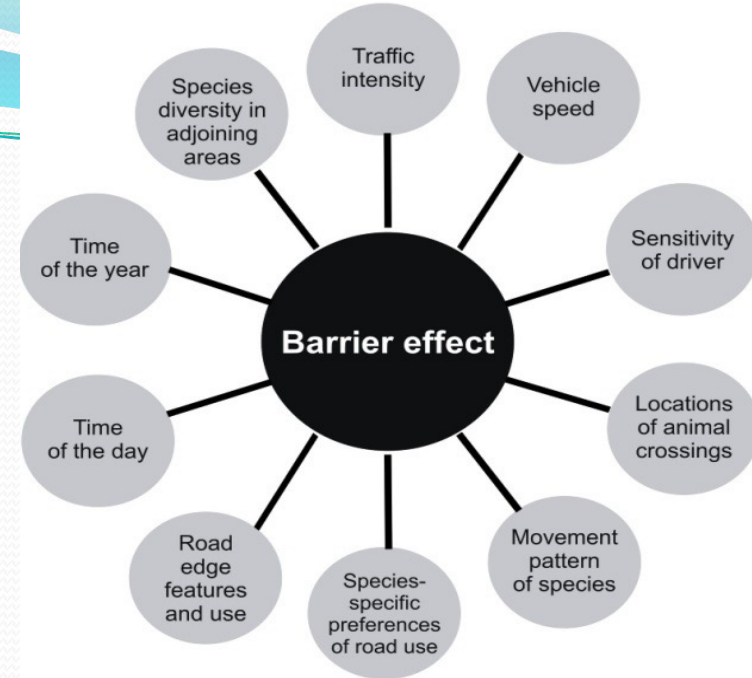


The Topography





- *Habitat Loss and Fragmentation*



Degradation of Habitat Quality



Direct Loss of Habitats due to clearing of vegetation



Impact of Linear developments :

- *Injury and Mortality*



Roadkill distribution 2019

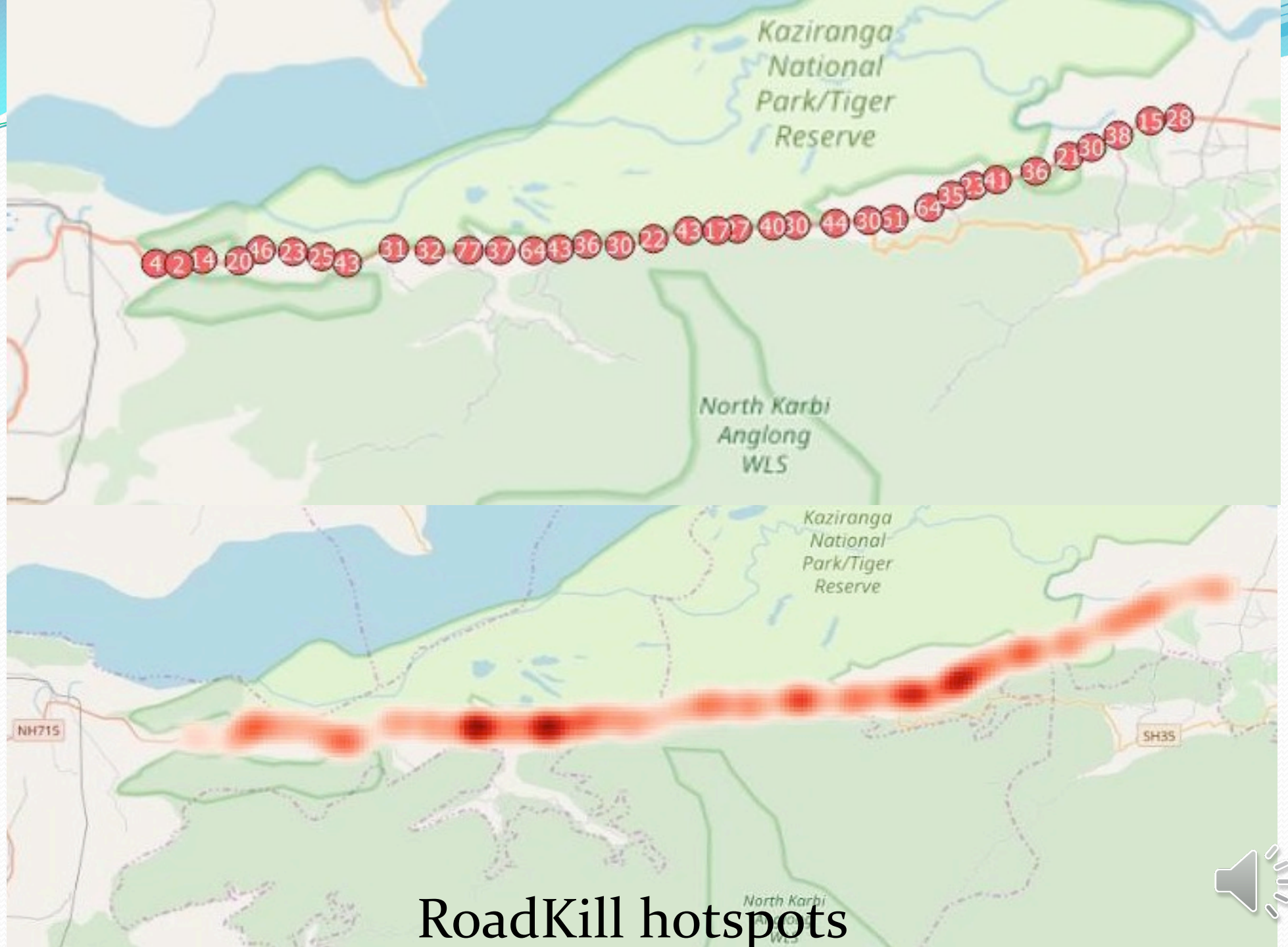
Month	Number of road kill
January	5
February	9
March	26
April	21
May	66
June	143
July	177
August	224
September	107
October	149
November	180
December	69
Total	1176



Summary of roadkill among different animal classes on NH 715

Amphibia	10
Bird	411
Large mammal	41
Reptile	585
Small mammal	129
Total	1176





RoadKill hotspots



- The wild animals crossing from Kaziranga to Karbi Anglong need to be provided the safe passage across the NH 37 to maintain the integrity and sustainability of Kaziranga National Park.
- There is a pressing need for conservation to go hand-in-hand with development.



The nine identified corridors are listed below:

1. Panbari
2. Haldhibari
3. Bagori
4. Harmati
5. Kanchanjuri
6. Hatidandi
7. Deosur
8. Chirang
9. Amguri

Ref:

REPORT ON DELINEATION OF NINE ANIMAL CORRIDORS CONNECTING KAZIRANGA NATIONAL PARK TO KARBI-ANGLONG

Submitted by:

THE COMMITTEE FOR DELINEATION OF CORRIDORS

(Constituted by Govt. of Assam Vide Order No.FRS.142/2018/474 dtd. 4th May 2019)



Mitigation Measures and Wildlife Functional Groups

KEY	
	minimum requirement
	adequate
	best
	Affects negatively
NA	Not applicable

MITIGATION MEASURES	WILDLIFE FUNCTIONAL GROUPS						
	Large carnivores	Large herbivores	Medium-sized mammals	Small mammals	Amphibians	Reptiles	Birds
Roadside forest habitat management							
Maintain natural habitat							
Minimise human activity							
Maintain canopy connectivity							
Establish and maintain vegetation along roadway							
Structure type							
Pipe culvert							
Box culvert							
Canopy bridges/glider poles							
Bridge underpass							
Overpass							



more...

Project Description- 3 segments

Segment-1

1. Kanchanjuri
2. Hatidandi
3. Deosur
4. Chirang
5. Amguri

18.8 km

Segment-II

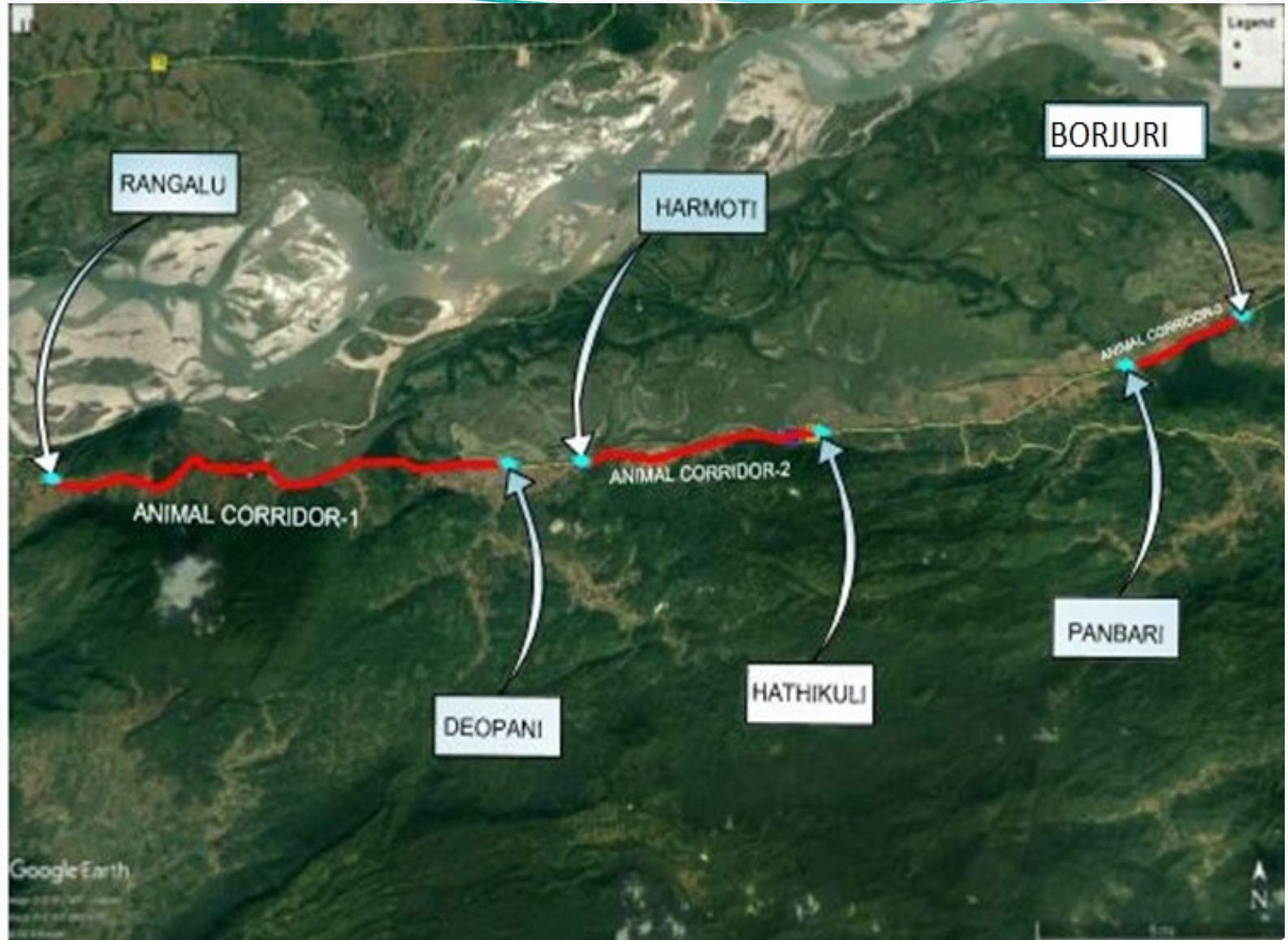
1. Haldhibari
2. Bagori
3. Harmati

11.3 km

Segment-III

1. Panbari

4.770 km



Challenges

- As the National highway is crossed by large herbivores like Elephant, Rhino, Asiatic buffalo to small herbivores like deer , carnivores like Tigers, as well as reptiles & amphibians, the animal passes have to be designed to cater to universal need.
- It is also imperative that the traffic is maintained smoothly during construction.
- Construction should be quick and less disturbing to the eco-sensitive area
- Close proximity to core area of KNP and OIL pipelines



Special Methodology

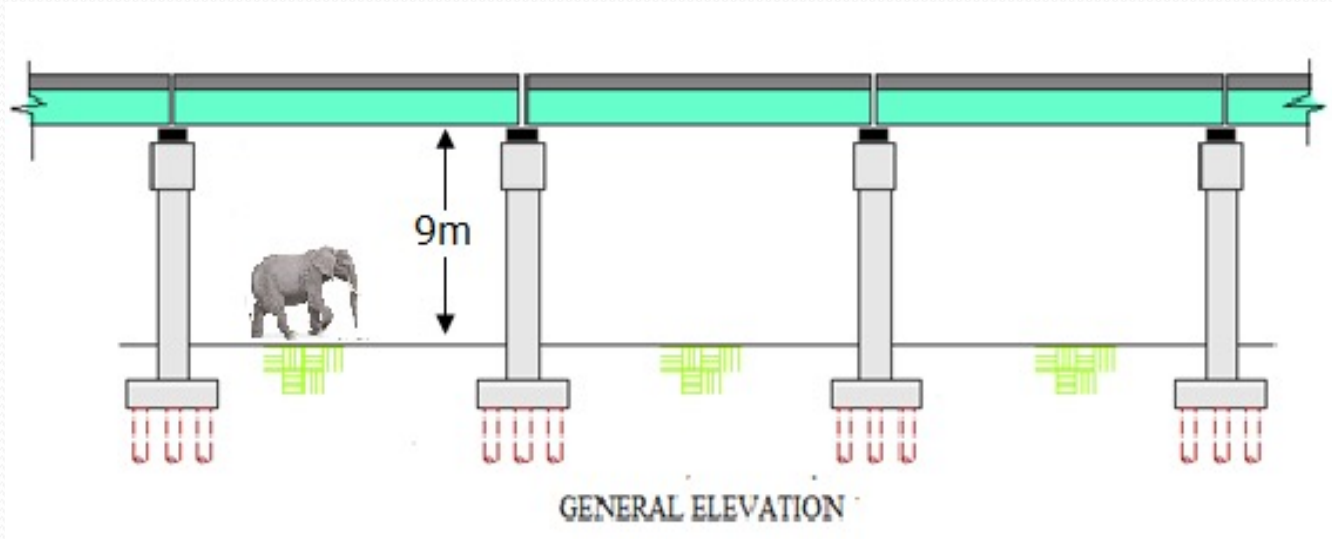
The construction methodology will ensure

- Avoiding construction on the existing road to reduce impact on the traffic flow
- Minimum construction time, Precast/ prefab technology to the extent possible
- No construction after sunset
- Camouflaging immovable machinery at night
- Finished product to be harmonious with nature and friendly for wildlife
- Minimal disturbance during operation



Salient features of the project

The project will consist of 4 lane Elevated road with 9 m vertical clearance



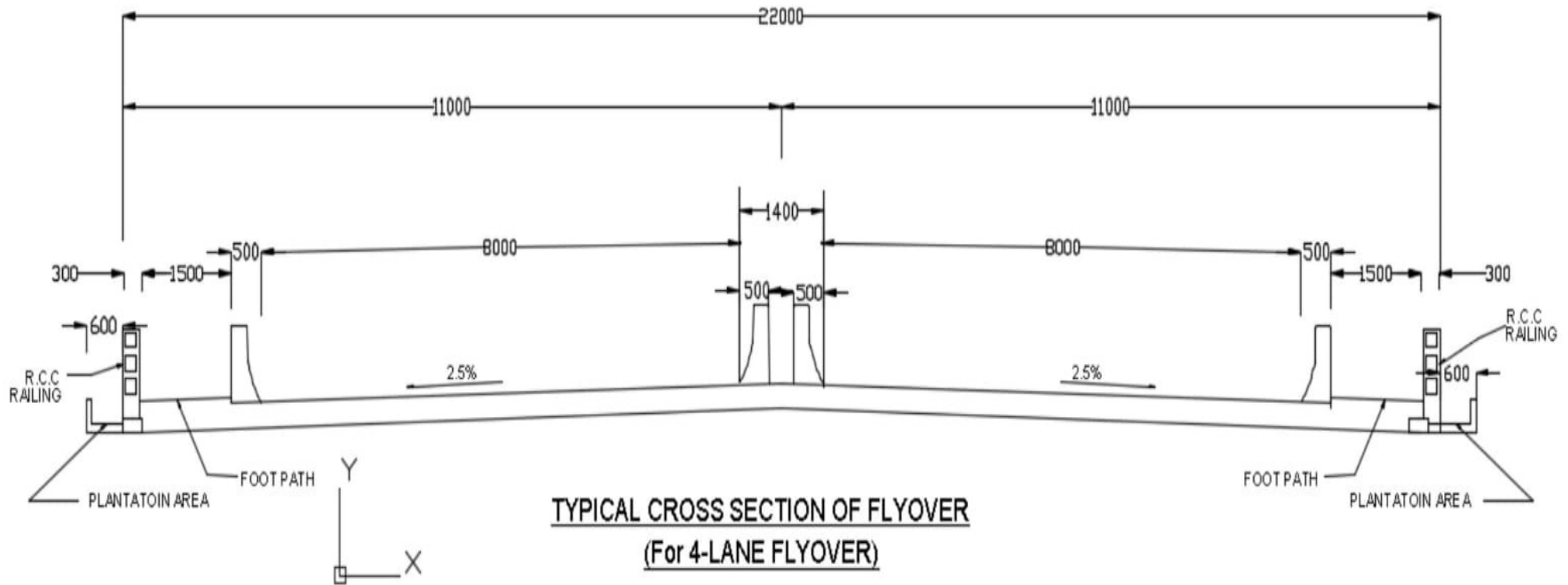


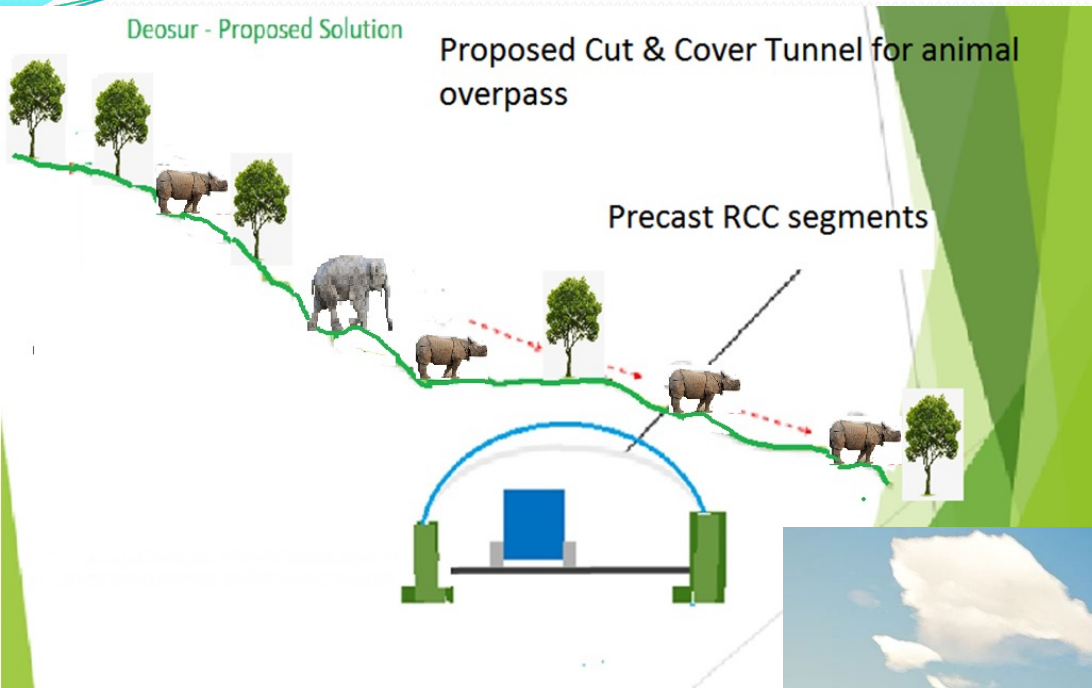
Fig1: Deck Configuration



- **Noise barrier and head light diffuser with vegetated panels and solar panels**



• Cut and fill tunnels



● Hill tunnels



View points



Cycle track/ jogging track/footpath on both sides



Ramps at selected locations



Rope bridge for arboreal animals



Transplantation of trees



Expected outcome & benefits

- The project will ensure preservation of Kaziranga Landscape.
- It will present a good example of coexistence of conservation and development to be emulated in projects through natural areas.
- Enhanced tourist attraction -will boost tourism economy.



THANK YOU

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