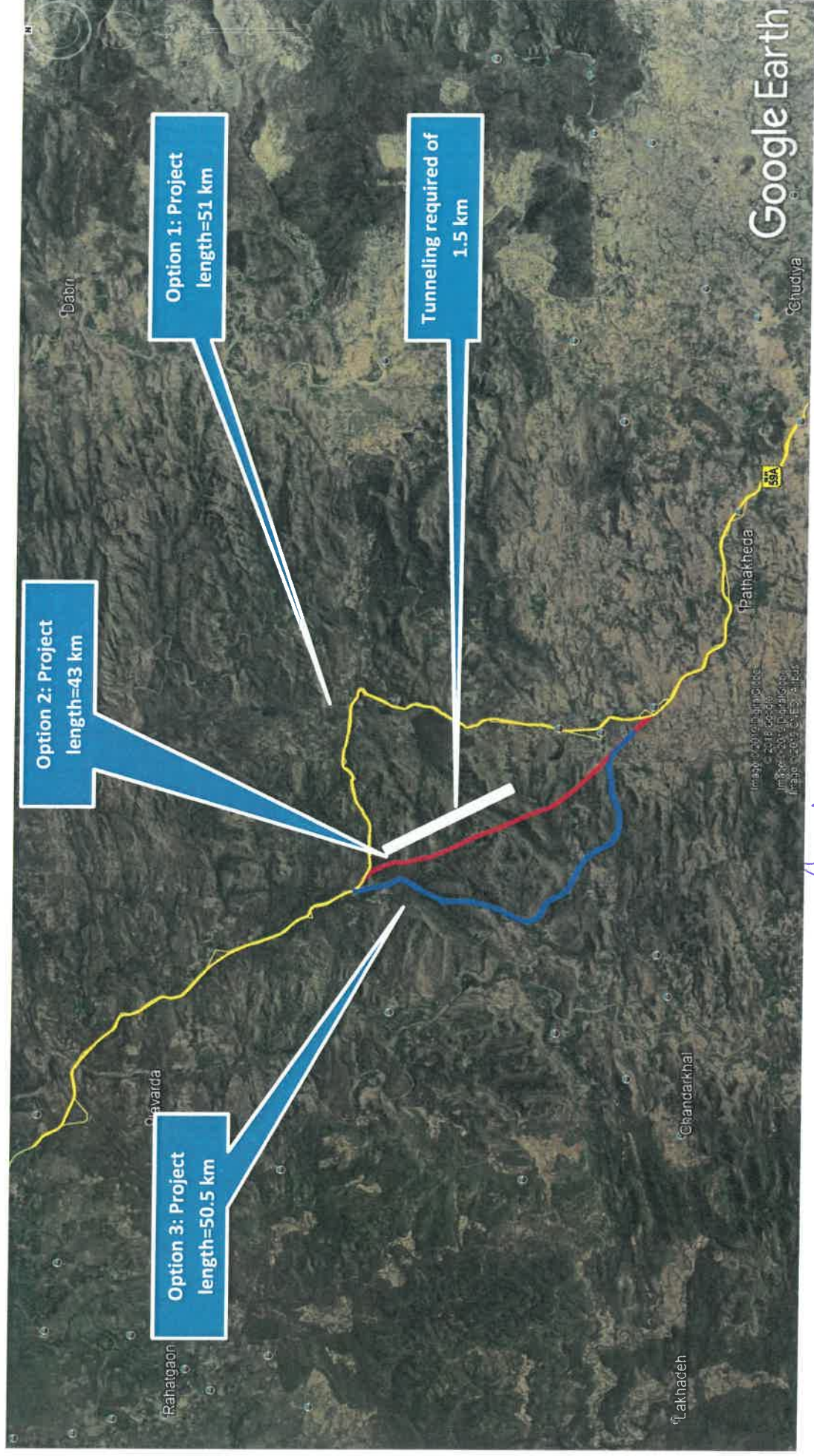


**Project Name:-** Additional Land Required for 4 laning of Harda -Betul Section of National Highway (NH-47) from Temagav km 30+000 to Chicholi km 81+000 (length=51 km) under BHARATMALA Pariyojana Economic Corridor (Phase- I) in three districts of Harda, Hoshangabad and Betul in the State of Madhya Pradesh on EPC Mode

## ANALYSIS OF ALTERNATIVES



*[Signature]*  
**Project Director**  
NHAI, P.U.-Harda (M.P.)

**Project Name:-** Additional Land Required for 4 laning of Harda -Betul Section of National Highway (NH-47) from Temagav km 30+000 to Chicholi km 81+000 (length-51 km) under BHARATMALA Pariyojana Economic Corridor (Phase- I) in three districts of Harda, Hoshangabad and Betul in the State of Madhya Pradesh on EPC Mode

| S. No. | Description                                     | Bypass - Option I (Yellow Colour)                              | Bypass-Option II (Red Colour)                                                                                     | Bypass - Option III (Blue Colour)                                     |
|--------|-------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 1      | Length (Km)                                     | 51                                                             | 43.2km                                                                                                            | 50.5km                                                                |
| 2      | Geometrics                                      | Good. Design speed 60-80Kmph                                   | Good. Design speed 60-80Kmph                                                                                      | Good. Design speed 60-80Kmph                                          |
| 3      | Land Acquisition (Hectare)                      | 91.8                                                           | 129.6                                                                                                             | 150                                                                   |
| 4      | Bridges/ structures                             | 1 Major Bridge                                                 | 2 tunnels of length 1.5km long<br>1 Major Bridge                                                                  | 1 Major Bridge                                                        |
| 5      | Junctions                                       | 1                                                              | 1                                                                                                                 | 1                                                                     |
| 6      | Environmental Constraints                       | less area of forest will be effected since only 18m PROW taken | High area of forest land taken when compared to the Option 1<br>All the Biodiversity of the area will be effected | High area of forest land taken when compared to all the other options |
| 7      | Structures Impacted                             | Nil                                                            | Nil                                                                                                               | Nil                                                                   |
| 8      | Use of Existing Road in comparison              | Nil                                                            | Nil                                                                                                               | Nil                                                                   |
| 9      | Project Civil Construction Cost (Rs. in Crores) | 663 cr                                                         | 1425 cr (due to high cost for tunneling)                                                                          | 799 cr                                                                |
| 10     | Recommendation                                  | Yes, recommended                                               | Not recommended                                                                                                   | Not recommended                                                       |



**Project Director**  
NHAI, PU-Harda (M.P.)