PROJECT ROAD: JOGIGHOPA - BONGAIGAON

Alternative analysis between chainage 8+100 Km to 10+140 Km of Jogighopa - Bongaigaon project road

	Existing Road	Option 2	Option 3	Option 4
	Option 1	Option 2	Option 3	Option 4
Forest land acquisition	Being the existing alignment it requires less forest land acquisition than options 4	No Forest land acquisition is required.	No Forest land acquisition is required.	Forest land acquisition is highest than all options as this alignment is passing through dense forest.
Fuel consumption & GHG emission	Length= 1940 meter. Shortest length than all other options. So fuel consumption and GHG emission will be least than all other options.	Length= 2423 meter. Highest fuel consumption and GHG emission compared to all options.	Length= 2421 meter. higher fuel consumption and GHG emission compared to options 1 and option 4 but slightly less than option 2.	Length= 2343 meter. It would lead to lesser fuel consumption and GHG emission compared to option 2 and 3 but option 1.
Impact on structures and private land (Social impact)	Being the existing alignment, numbers of affected structures or house will be less than option 2 but little bit high than option 3 and 4.	Comparatively higher numbers of houses and structures might be affected during construction than other options.	Few structure or house might be affected during construction but it is less than option 2.	As this road is passing through dense forest land houses or structures might not be affected.

Based on above comparison Option-1 (pink colour) is recommended as it would result in lesser fuel consumption and GHG emission in comparison to all other options. Furthermore as this is the existing road it requires comparatively less forest land acquisition. Connectivity for local forest villagers might be adversely affected due to changes in existing alignment. Hence, Option 1 (existing alignment) is preferred alignment for this project road

Alternative analysis between chainage 12+495 km to 12+942 km of Jogighopa-Bongaigaon project road

	Existing Road	Option 2	Option 3	Option 4
	Option 1	Option 2	Option 3	Option 4
Forest land acquisition	Being the existing alignment it requires less forest land acquisition than options 2	Forest land acquisition is highest than all options as this alignment is passing through forest.	Forest land acquisition will be higher than option 2.	No Forest land acquisition is required.
Fuel consumption & GHG emission	Length= 447meter. Shortest length than all other options. So fuel consumption and GHG emission will be least than all other options.	Length= 860meter. Higher fuel consumption and GHG emission compared to option 1 and 4 but less than option 3.	Length= 960meter. highest fuel consumption and GHG emission compared to all other options.	Length= 804meter. It would lead to lesser fuel consumption and GHG emission compared to option 2 and 3 but option 1.
Impact on hydrology	Local hydrology will be less impacted compared to option 4 but little higher than option 2 and 3.	Local hydrology will be least impacted compared to all other options as this option is passing through forest land.	Local hydrology will be less impacted compared to option 1 & 4.	As this option passes just adjacent to the water body local hydrology may be adversely impacted during construction compared to all other options

Based on above comparison Option 1 (pink colour) is recommended as it would result in lesser fuel consumption and GHG emission in comparison to all other options. Furthermore as this is the existing road it requires comparatively less forest land acquisition. Connectivity for local forest villagers might be adversely affected due to changes in existing alignment. Hence, Option 1 (existing alignment) is preferred alignment for this project road.

Alternative analysis between chainage 14+060 km to 15+452 km of Jogighopa - Bongaigaon project road

	Existing Road	Option 2	Option 3	Option 4
	Option 1	Option 2	Option 3	Option 4
Forest land acquisition	Being the existing alignment it requires less forest land acquisition than options 2 and 3.	Forest land acquisition is highest than all options as this alignment is passing through forest.	Forest land acquisition will be higher than option 1 but less than option 2.	No Forest land acquisition is required.
Fuel consumption & GHG emission	Length= 1392 meter. Shortest length than all other options. So fuel consumption and GHG emission will be least than all other options.	Length= 2406 meter. Higher fuel consumption and GHG emission compared to option 1 and 3 but less than option 4.	Length= 1842 meter. higher fuel consumption and GHG emission compared to option 1 but less than option 2 and 4.	Length= 2669 meter. It would lead to highest fuel consumption and GHG emission compared to all options.
Impact on hydrology	Local hydrology will be less impacted compared to option 4 but little higher than option 2 and 3.	Local hydrology may not be affected as this option is passing through forest area.	Local hydrology may not be affected as this option is passing through forest area.	As this option passes just adjacent to the Champamati river, local hydrology may be adversely impacted during construction compared to all other options

Based on above comparison Option 1 (pink colour) is recommended as it would result in lesser fuel consumption and GHG emission in comparison to all other options. Being this is the existing road it requires comparatively less forest land acquisition. Option 2 and 3 are passing through forest land and option 4 is passing through river. Furthermore, connectivity for local forest villagers might be adversely affected due to changes in existing alignment. Hence, Option 1 (existing alignment) is preferred alignment for this project road.

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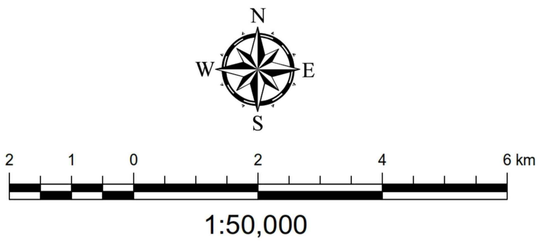
ALTERALTERNATIVE ANALYSIS OF PROPOSED DIVERSION OF 3.086 HA. FOREST LAND FOR UPGRADATION OF ROAD CORRIDOR NO-A04, JOGIGHOPA TO SWAHID BEDI (NEAR BONGAIGAON) ROAD IN THE BONGAIGAON DISTRICT, ASSAM

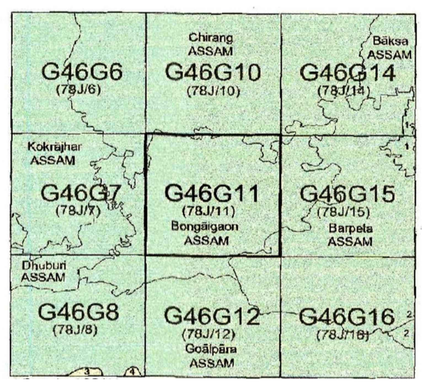


Legend

- DGPS Point
- LAND TO BE DIVERTED
- EXISTING ROW
- PROPOSED ROW

Legend

- Alternative Option - 1
- Alternative Option - 2
- Alternative Option - 3
- Approved Alignment



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N W E S

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Legend

- DGPS Point
- LAND TO BE DIVERTED
- EXISTING ROW
- PROPOSED ROW

Legend

- Alternative Option - 1
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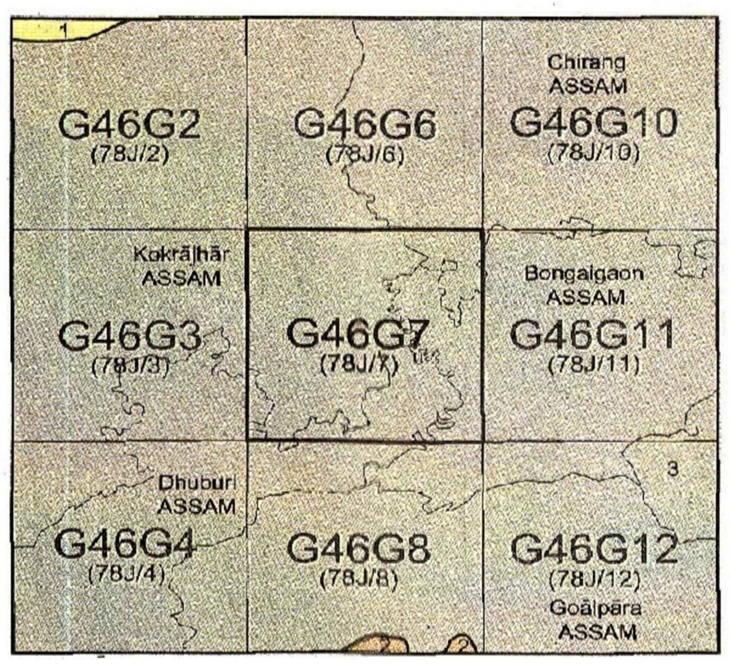

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