

Review Form 1.7

Journal Name:	Journal of Geography, Environment and Earth Science International
Manuscript Number:	Ms_JGEESI_112461
Title of the Manuscript:	OPTIMIZING GEOTECHNICAL PARAMETERS FOR SUSTAINABLE ROAD EMBANKMENTS IN FLOOD DISASTER-PRONE AREAS IN BANGLADESH
Type of the Article	Scientific Article

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</p>	<p>1- The work is very important for the scientific committee as it focuses on optimizing geotechnical parameters for sustainable road embankments in flood-prone regions, exemplified by the Sayedpur-Hashara Road case study in Bangladesh. This research plays a vital role in addressing the vulnerability of transportation infrastructure, providing significant implications for the broader scientific community engaged in disaster mitigation and infrastructure development. The study employs a comprehensive methodology, including systematic sampling, in-situ and laboratory testing, and advanced optimization techniques, to establish a robust framework for understanding and enhancing the resilience of road embankments. The outcomes of the study, comparing optimization strategies against existing standards, not only deepen the understanding of the Sayedpur-Hashara Road case but also have broader applications for flood disaster mitigation in Bangladesh. The research emphasizes the crucial necessity of developing effective engineering solutions based on geotechnical parameters, making a valuable contribution to the scientific community's efforts in achieving sustainable and resilient infrastructure in flood-prone regions.</p> <p>2- Yes 3- Yes 4- Yes 5- Yes 6- Yes</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>1- Yes</p>	
<p>Optional/General comments</p>	<p>Note to review or correct:: Fig 1: Map of Serajdikhan Upazila: you need to zoom in on the study area and add the legend (there is a lot of information that is not necessary and illegible) Fig 2: Map of Study Area Road: you need to zoom in on the study area (there is a lot of information that is unclear and illegible) It is necessary to add in the introduction a small history on flooding in the region or in the country with references. You mentioned climate change in the introduction but no documentation in the results for the study area. In part 2.0 GEOLOGY OF THE STUDY AREA: you cited the formations without citing the ages and references. Also you mentioned groundwater and water tables without mentioning their relationship with erosion. The title: 2.0 GEOLOGY OF THE STUDY AREA It is necessary to change by: the geography and GEOLOGY OF THE STUDY AREA In these results we must add these depths: (The CBR values indicate variations in soil strength at different depths, offering insights into the road embankment's potential load-bearing capacity. Layers with higher CBR values are desirable</p>	

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	<p>for constructing resilient embankments.))</p> <p>Table 2: Particle Size Distribution of Soil Samples You must reinforce the interpretation (Table 2: Particle Size Distribution of Soil Samples) by the results you found</p> <p>Table 1: California Bearing Ratio (CBR) Values for Various Soil Layers Where is the geographical location of the exchanges?</p> <p>Table 3: Atterberg Limits of Soil Soil Sample (S1, S2; S3), but the geographical location of these points must be mentioned on the map or the coordinates must be added</p>	
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PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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