Review of: "Recent Trends and Techniques in Landslide Hazard Assessment"

Mustafa K. Koçkar[1]

1 Hacettepe Üniversitesi Ana Sayfasi

Potential competing interests: No potential competing interests to declare.

Dear Authors,

I have carefully reviewed the manuscript entitled “Recent Trends and Techniques in Landslide Hazard Assessment”, which was submitted to “Qeios”. While the manuscript contains intriguing information, major modifications and clarifications require attention. I have outlined these issues below for your consideration:

- The statement highlights the significance of landslides in steep terrain, particularly in regions prone to severe storms. Could the authors provide specific examples or case studies to illustrate how severe storms exacerbate landslide risk and the resulting impacts on communities and infrastructure? Additionally, how do human activities, particularly agricultural practices, contribute to landslide susceptibility in these areas?
- The mention of landslide hazard assessment underscores the importance of accurately identifying and mapping landslide hazard zones (LHZ) for effective risk management. Could the authors elaborate on the different approaches mentioned for LHZ choice processes, such as intuitive, half-size, quantification, probability, and multi-criteria approaches? What are the advantages and limitations of each approach, and how do they contribute to comprehensive landslide hazard assessment?
- Multivariate approaches are highlighted as feasible and cost-effective techniques for assessing landslide risk at a regional scale. It would benefit readers to understand the specific methodologies and techniques encompassed within multivariate approaches. Could the authors provide examples or insights into how multivariate approaches are applied in landslide risk assessment, particularly in regional contexts? How do these approaches account for the complex interactions between various factors contributing to landslide susceptibility?
- The statement acknowledges the increasing utilization of remote sensing and geographic information systems (GIS) in landslide research over the past two decades. Could the authors elaborate on the specific advancements and innovations in remote sensing and GIS technologies that have facilitated the study of landslide hazards? How do these technologies enhance the accuracy, efficiency, and scalability of landslide hazard assessment processes, particularly in large and complex terrain?
- Given the expanding use of remote sensing and GIS tools in landslide research, what are some emerging trends or future directions in the field? Are there any novel methodologies or technologies on the horizon that hold promise for further advancing our understanding of landslide hazards and improving risk management practices? How might these advancements address existing limitations or challenges in landslide hazard assessment?

- I would like to suggest the following scientific articles that will help authors to improve their manuscript quality and increase the level of the work.

Regards..