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REVIEWER'S REPORT

Manuscript No.: IJAR-55543

Title: Flood Magnitude and Dynamics in the Ungauged Velabisht River Basin, Albania, Based on RainfallÂ–Runoff Modeling

Recommendation:

Accept as it is .....

Accept after minor revision.....

Accept after major revision .....

Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		x		
Techn. Quality	x			
Clarity			x	
Significance	x			

Reviewer Name: Dr. Hari Prashad Joshi

Detailed Reviewer's Report

This study presents a well-structured and methodologically sound application of the HEC-HMS model for flood hydrograph estimation in an ungauged basin in Albania. The research addresses a relevant practical challenge, employing established techniques including precipitation frequency analysis, the Curve Number method, NRCS unit hydrograph, and Muskingum-Cunge routing in a coherent framework. The validation effort using hydrological analogy is appropriate and strengthens the findings, showing good agreement for higher return periods. The manuscript is generally clear and provides valuable insights for regional flood risk management.

Minor revisions are required before acceptance. Please clarify the conceptual justification for using a linear, time-invariant unit hydrograph across all return periods and discuss its limitations regarding basin nonlinearity. Expand the discussion on the uncertainty introduced by the key assumptions, particularly the equivalence of storm and flood return periods and the use of non-calibrated routing parameters. The description of the subbasin delineation map (mentioned but not shown) and the references to figures (e.g., spatial distributions) in the text need verification for consistency with the submitted manuscript. Finally, a brief paragraph explicitly stating the study's limitations would enhance the paper's scientific rigor. With these adjustments, the manuscript will be suitable for publication.