

# Review of: "Pedogenic Characterization of Alluvium-Derived Soils in the Arid Region of Rajasthan, India"

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Potential competing interests: No potential competing interests to declare.

The above-mentioned paper by D.C. Joshi is a good attempt at the development of soils from sediments of the Luni River and its tributaries in the SE part of the arid region of Rajasthan; its pedogenesis; and the morphological characterisation, etc., of the soil thus developed. However, the paper needs modifications and additions in the following lines:-

1. The **morphological characteristics of the soil horizons** developed in the study area may please be characterised in terms of humid and aeolian phases that were operating during the Quaternary period in the development of the upper reaches of the Luni River system.
2. **Mineralogical composition** of different soil profiles be supplied in separate columns in table 1 and table 2.
3. **Discussions and Conclusions** of this study may please be highlighted under a separate sub-heading wherein the specific findings of this study in totality are discussed and conclusions are drawn by the author.
4. Many workers have studied the Luni River basin of the arid region of the SE part of Rajasthan. The author has mostly cited his references except a few others, whereas prominent studies in the Luni River basin of the SE part of the arid region of Rajasthan were studied by several authors like R. P. Dhir, J. S. Choudhari, Amal Kar, B.K. Sharma, Surendra Singh of the CAZRI Jodhpur, and D. B. Guha and G.N. Pal (Proceedings of GEOSAS IV, March 2003) of the GSI, Jaipur, which may please be discussed in the introductory part of the paper, at least.
5. The different phases of climatic changes from humid to aeolian and their impacts on the soil development in the present study need incorporation in this paper.
6. The objective of the study is mainly the illuviation process, pedogenesis process, and characterisation of soil profiles in the study area. These processes are not discussed in detail in the text under proper sub-heads, which may please be incorporated.
7. The Abstract may please be rewritten after modifications in the text as desired from points 1 to 6.

The present study may please be modified as per points given herein and above. The research paper by the author may then be published after modifications enumerated above in points 1 to 6.

Thank you.

References to see:

1. J.S. Choudhari & R.P.Dhir (1981): Clay mineralogy of medium-fine textured alluvial soils of western Rajasthan. Proceedings INSA, 47 A, No.6, pp. 695-704.

2. Amal Kar (1983): Morphology and evolution of slopes in upper Luni basin, Rajasthan. *Annals of Arid Zone*, 22(4), pp. 367-375.
3. D.V. Ramanaiah (1982): Groundwater conditions in Luni Jojari catchments of western Rajasthan. *Trans. Isdtand Ucds*, 7(2), pp. 28-34.
4. Surendra Singh (1983): Anthropogenic factors and desertification of different landforms (ecosystems) in the Rajasthan desert, India. *Man & Environment*, Vol. VII.
5. P.C. Vats & Surendra Singh (1983): Impacts of geomorphology on land utilisation- a case study of Nagaur district. *The Deccan Geographer*, Vo;.XXI, Oct-Dec.1983, No.3, pp. 441-448.
6. D. B. Guha & G.N. Pal (2003): Quaternary geology and morphostratigraphy in relation to the paleoclimatic fluctuations in the lower reaches of Luni river basin, Rajasthan. *Proceedings GEOSAS - IV*, March 2003, pp. 255-260.