

Review of: "Effective use of Waste Materials: A Case Study of Utilization of Fly Ash in Flexible Pavement Structures"

Rodgers Bangi Mugume

Potential competing interests: No potential competing interests to declare.

This review paper has presented a review of the literature on the use of fly ash in concrete structures and focuses on the need to extend the current literature to the use of fly ash in pavement structures. A few areas have been identified that require improvement to make the paper better, as shown below:

1. There is a need to thoroughly review and improve the grammar of the manuscript. An example is a sentence in the abstract, "....., fly ash is used can be used in surface, base, and sub-grade layers." Other areas exist within the manuscript that need revision.
2. On page 4, under the introduction, it is stated that "However, there is a need to extend the current literature to the use of fly ash in pavement structures, which is an important part of national infrastructure." This is misleading since rigid pavements, which are part of pavement structures, use cementitious concrete, including incorporation of fly ash, which is the same as that used in other types of concrete structures. The authors should clearly point out throughout the manuscript that the focus is on only flexible pavements rather than sometimes generally referring to pavement structures.
3. The authors, when presenting results of previous studies in the manuscript, mostly provide generic findings such as "This study concluded that the replacement of filler with lime yielded the best results in terms of strength as well as energy." or "The study showed that samples with fly ash had better characteristics than the other samples in terms of stability, resilient modulus, and tensile strength. " More detailed results and figures should be provided to support the findings being presented rather than saying "yielded the best results," "had better characteristics," "found an increase in," "reported to result in higher resistance," etc.
4. Clarity should be provided in the manuscript as to whether the use of the word "asphalt" in the manuscript is as a binder (bitumen) or a mix.