

# Effect of Curing on Fly Ash Stabilized Road Materials in Botswana

**Moumy D Sarma<sup>1</sup>**

<sup>1</sup>Materials and Research Division, Roads Department, Ministry of Works and Transport, P.O. Box 40893, Gaborone, Republic of Botswana

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## ABSTRACT

About 400 tons of fly ash is being produced daily in Botswana as waste product, which is about 250 kg per annum per sq km of country's area. Disposal of such enormous mass has alarming environmental impact on eco-sensitive Kalahari Desert, which is occupying about 80% of Botswana's area. Such disposal problem encouraged bulk utilization of fly ash. So far, only 50% is being used in the local cement industry. Botswana has also substantial amount of non-compliant marginal quality pedogenic materials viz., calcrete, ferricrete, and silcrete for construction of roads. Some of them are not suitable for the base/subbase layers without proper treatment. Accordingly, attempts have been made to improve the quality of such materials by blending with fly ash in different proportions. Response of such improvement with respect to the effect of curing has been studied. The study reveals that the California Bearing Ratio (CBR) of the various mixes with different fly ash percentages vary with curing period, which has considerable impact on construction programme.

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