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# FLY MANU MATRIX (FMM): INNOVATING CONSTRUCTION WITH FLY ASH AND CHICKEN MANURE-BASED GEOPOLYMER AS A GREEN CEMENT ALTERNATIVE

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**ABSTRACT**

One of the main sources of income in the municipality of Tuy, Batangas is poultry farming, with waste product from chicken is chicken manure, which is one of the two main materials in this study. The application of geopolymer as an environmentally-friendly cement alternative have seen significant progress in recent years. This project involves the process of using fly ash and chicken manure to turn into cement alternative materials. This alternative for traditional cement seeks to introduce promising solution for sustainable construction, which have the potential to bring about affordable cement in the industry considering the cost-effectiveness, environmental effect, and material properties for ecological processes. Thus, these project show fly ash and chicken manure as a feasible source of sustainable construction alternative material, both domestically and internationally, due to its availability, affordability, and advantageous environmental effects, helping the search for sustainable cement construction materials alternatives.

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