World Academy of Science, Engineering and Technology
International Journal of Geological and Environmental Engineering
Vol:19, No:08, 2025

Estimation of Natural Pozzolan Reserves in the Volcanic Province of the Moroccan Middle Atlas Using a GIS Geographic Information System in Order to Valorize Them

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Abstract : Mio-polio-quaternary volcanism of the Tabular Middle Atlas, which corresponds to prospective levels of exploitable usable raw minerals, is a feature of Morocco's Middle Atlas, especially the Azrou-Timahdite region. Given their importance in national policy in terms of human development by supporting the sociological and economic component, this area has consequently been the focus of various research and prospecting of these levels in order to develop these reserves. The outcome of this labor is a massive amount of data that needs to be managed appropriately because it comes from multiple sources and formats, including side points, contour lines, geology, hydrogeology, hydrology, geological and topographical maps, satellite photos, and more. In this regard, putting in place a Geographic Information System (GIS) is essential to be able to offer a side plan that makes it possible to see the most recent topography of the area being exploited, to compute the volume of exploitation that occurs every day, and to make decisions with the fewest possible restrictions in order to use the reserves for the realization of ecological light mortars.

Keywords : GIS, topography, exploitation, quarrying, lightweight mortar
Conference Title : ICGGES 2025 : International Conference on Geology, Geophysics and Earth Sciences
Conference Location : New York, United States
Conference Dates : August 09-10, 2025