

SUSTAINABLE MINING OF THE CLAY RESOURCES IN PENINSULAR MALAYSIA

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Abstract: Sustainability in the mining of clay depends on the nature of the resource, its usage, extraction practices, and the reuse of land affected by mining. Although there are abundant clay resources in Peninsular Malaysia, much of the clay is common clay used in large volumes for simple structural products like bricks, pipes, roof tiles and flower pots. Other, less common clays have special properties that enable them to be used in higher value products. Sustainable extraction of our clay resources will depend on using the appropriate clay for a given application, avoiding the use of high value clays for the production of low value products, and avoiding excessive digging and ground disturbance during extraction. Most clay resources that have been identified occur in thin layers and at shallow depths (less than 10 metres). Mining is extensive rather than intensive. If large volumes of clay are extracted, land areas affected can be substantial. Mining without adequate knowledge of clay quality can result in ad-hoc digging and the excessive disturbance of large areas in the search for the right clay. With good knowledge of the deposit and proper planning, clay can be extracted with minimal disturbance to the land. Different types of clay can be identified and marketed reducing waste and increasing returns. The land can be properly landscaped and reused. Some extraction takes place in areas being developed, and the land is built on immediately after the clay is removed. Sometimes, development moves faster than the ability of industry to use the clays. Good clay should be properly stockpiled and conserved; otherwise it may go to waste or become inaccessible. Optimizing usage, minimizing the environmental impact of extraction, and the quick return of land to other productive uses contribute towards the sustainable development of the clay resources.