

Aggregate flows and their implications on the environment: a preliminary assessment

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Economic growth has propelled infrastructure development in Selangor and increased the demand for construction aggregates. Uncontrolled extraction of natural aggregates is depleting existing reserves, which is not sustainable for future development. Aggregate resource management is not holistic and systematic, as the resource is believed to be easily available and abundant. An assessment of the flow of aggregates, with respect to its utilization from extraction to disposal and taking into account dissipative losses to the physical environment, will be useful for formulating strategic interventions and managing this non-renewable resource in an effective manner. Preliminary results obtained using Selangor as a case study are encouraging, but there is much work to be done to address information gaps and develop a complete picture of the aggregate flow.

Pertumbuhan ekonomi telah menyumbang kepada pembangunan infrastruktur di Selangor dan meningkatkan permintaan untuk bahan binaan agregat. Pengeluaran sumber agregat secara tidak terkawal menyumbang kepada pengurangan sumber asli tersebut dan ini dijangka menjejaskan pembangunan secara lestari. Pengurusan sumber agregat tidak dilakukan secara holistik dan sistematik kerana agregat mudah diperolehi. Penilaian kitaran agregat berdasarkan aspek penggunaannya iaitu daripada pengeluaran kepada pembuangan dengan mengambilkira kesan terhadap alam sekitar fizikal, akan membantu pengurusan sumber ini secara lebih berkesan. Hasil awalan yang diperolehi daripada kajian kes di Selangor amat menggalakkan. Namun demikian lebih banyak maklumat diperlukan untuk memperolehi gambaran kitaran agregat yang lebih sempurna.