

Closure of the Batu Caves quarries and alternative rock sources for the Federal Territory

AW PECK CHIN, Geological Survey Malaysia, Ipoh, Perak

This paper examines the effect, if any, of the enforced closure of the Batu Caves quarries has on the supply and demand of construction materials in and around the Federal Territory. The three Batu Caves quarries which ceased rock blasting at the end of 1980 produced a yearly average of 512,500 tonnes of crushed stones between 1978 to 1980. In 1981 these three quarries produced 814,000 tonnes from their stockpiles. Most of the crushed limestone is used as concrete aggregate and road metal in the construction industry. Some of the limestone is used for making quick/hydrated lime, agriculture limestone, calcium carbonate powder, riprap and rock chips for terrazzo tiles.

The supply and demand of rock construction materials can be met by the production from other quarries operating in and around the Federal Territory. There are five other limestone quarries and seven granite quarries. Two other quarries, one limestone and one granite, ceased production since 1981. There are two quarries producing quartz powder for industrial uses. The new Public Works Department granite quarry in Sungai Long will be in operation in the near future.

The five limestone quarries produced a total of 1,553,000 tonnes of crushed stones in 1981. Two of them produced more than half a million tonnes each. Crushed granite from the seven quarries total 1,153,000 tonnes in 1981. Production of crushed limestone from the 5 quarries was nearly double that of the three quarries from Batu Caves. Total production of crushed stones (limestone and granite) from the other quarries was more than 3 times the production from the Batu Caves quarries.

For each unit weight/volume, the price of granite is invariably higher than that of limestone. Depending on the size of the crushed stones, the price of granite may be 5 to 60 percent higher than that of

limestone. The 1981 price list shows that 1 tonne of 10.0 mm (3/8 inch) size aggregate of granite and limestone was \$23/- and \$22/- respectively. For the corresponding 37.5 mm (1½ inch) and 150 - 230 mm (6-9 inch) size aggregate, the price was \$18/- and \$15/- for granite and \$11/- for both sizes of limestone.

Not only is the price of limestone lower than that of granite, for certain uses, however, there is no substitute for limestone. Generally, for concrete aggregate and road-metal, either granite or limestone can be used. Production of lime and terrazzo tiles requires limestone. Limestone is preferred to granite for the construction of riprap.

There should be no shortage in the supply of rock construction materials for the next few years. Any increase in demand can be met by the existing quarries. However, long term supply of limestone is dependent on the Federal Territory and Selangor State planners and authorities. If current areas of quarrying are zoned for resource exploitation, the supply of limestone can be assured for a decade or two to come. There is also an ample reserve of granite.
