



GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH

RECORDS  
OF  
THE GEOLOGICAL SURVEY OF BANGLADESH  
Volume 4  
Part 5

GLASS SAND DEPOSITS OF CHAUDDAGRAM AREA,  
COMILLA DISTRICT, BANGLADESH

by

M. NAZRUL ISLAM

---

Issued by the Director General, Geological Survey of Bangladesh, Dhaka.

1986

## ABSTRACT

Glass sand deposit has been found in the Recent Piedmont Alluvium in the area between Noapara in the north and Duttasar in the south under Chauddagram Upazila of Comilla District. The area is a 10 mile (16 km) long narrow belt bordered by Tripura State of India on the east and by the Dhaka-Chittagong Highway on the west. The piedmont alluvium consists of silty clay, sandy clay, sand, clayey sand and clay.

The glass sand is white and yellowish-white, fine to medium grained, angular to sub-rounded and composed mostly of quartz, dark minerals, mica flakes and clay minerals.

Thirty-four glass sand lenses have been found in Chauddagram area. The thickness of the glass sand of the lenses varies from 0.5 foot (0.15 metre) to 5.5 feet (1.7 metre). The thickness of overburden ranges from 1.5 foot (0.5 metre) to 11.5 feet (3.5 metres).

The total area occupied by the glass sand deposits of Chauddagram area is 25,15,654 square feet (2,33,741 square metres). The total estimated reserves of glass sand for this area is 58,11,864 cubic feet (1,64,735 cubic metres) which comes to 2,85,687 short tons.

Results of mechanical analyses show that 90 to 96 per cent of the sand grain is in between 35 to 120 mesh which is of acceptable size range for glass industry. Results of chemical analyses also indicate that it may be used for the manufacture of coloured glass of medium to inferior grades. It is not suitable for the manufacture of a good quality glass, in normal condition, due to the presence of comparatively high percentage of ferruginous materials.

Reserves of glass sand deposits of Chauddagram are not adequate for a large scale commercial exploitation. However, small scale commercial exploitation is economical. Glass sand of this area is being used in Comilla-Chittagong region for manufacture of glass wares like bottles, tumblers, lamp chimneys and window glass of medium to inferior grades.